University of North Texas Bulletin | 2026-2027 Undergraduate Catalog

Official release date is July 1, 2026
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The information in this catalog is subject to necessary corrections

If you have questions about catalog content or how to use the catalog, contact the Office of Catalog and Curriculum Support at catalog@unt.edu.

This catalog is an official bulletin of the University of North Texas and is intended to provide general information. It includes policies, procedures and fees in effect at the time of release. UNT reserves the right to make changes at any time to reflect current rules of the UNT System Board of Regents, university policies and procedures, changes in federal or state law and fee changes. Information provided in this catalog is subject to change without notice and does not constitute a contract between the University of North Texas and a student, an applicant for admission, or other individuals. Updated policies and procedures can be found on departmental or university websites.

This catalog does not include all university policies and procedures for which students are responsible. In addition to reading this catalog carefully, students should consult other publications, such as the *Code of Student Conduct, Parking Regulations, Housing Handbook* and specific contracts. This catalog becomes effective on the first day of the fall semester, 2026.

Non-Discrimination Policy

The University of North Texas (UNT) is firmly committed to equal opportunity and does not permit – and takes actions to prevent – discrimination, harassment (including sexual violence, domestic violence, dating violence and stalking), and retaliation on the basis of race, color, religion, national origin, sex, age, disability, genetic information, or veteran status in its application, employment practices, and facilities; nor permits race, color, national origin, religion, age, disability, veteran status, or sex discrimination and harassment in its admissions processes, and educational programs and activities. UNT promptly investigates complaints of discrimination, harassment, and related retaliation and takes remedial action when appropriate. UNT also takes actions to prevent retaliation against individuals who oppose any form of harassment or discriminatory practice, file a charge or report, or testify, assist, or participate in a related investigation or proceeding.

Equal Opportunity and Title IX coordinates and monitors the University's compliance with the requirements of federal and state non-discrimination laws. You may direct questions or concerns to Equal Opportunity and Title IX by phone at 940-565-2759, TTY access: 940-369-8652 or 800-735-2989 or by email at oeotix@unt.edu.

General Information Number

Directory assistance for all university offices is available through the main switchboard at 940-565-2000; metro 817-267-3731.

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The University

About the University of North Texas

The University of North Texas, located in Denton and the flagship of the UNT system, is a place where students transform their lives through education and opportunity.

- UNT is a Carnegie R1 public research university and the largest university in the Dallas-Fort Worth area—and one of the most dynamic economic regions in the world.
- Through its campuses in Denton and Frisco, UNT serves nearly 44,000 students and awarded more than 13,000 degrees last year.
- With nationally recognized programs and an unparalleled network of industry and community partnerships, UNT fuels innovation and helps expand educational, cultural and economic opportunities across the state of Texas and beyond.
- UNT takes pride in providing access to an affordable, high-quality college education, coming in at No. 34 on *U.S. News & World Report's* list of "Top Performers on Social Mobility."
- *The Princeton Review* continually names UNT as a Best in the Southwest school and *Forbes* has listed UNT as an America's Top College for 18 consecutive years

More information about the university may be found on the UNT website.

UNT's Mission and Vision

Mission

At the University of North Texas, our caring and creative community empowers our students to thrive in a rapidly changing world.

Purpose

Our students will be the innovative leaders of tomorrow.

Vision

We will become globally known for collaborative and imaginative educational innovation and scholarly activity that transforms our students and benefits the world around us.

Achieving the Vision

The UNT community is guided by five Core Values:

- Courageous Integrity
- Be Curious
- We Care
- Better Together
- Show Your Fire

UNT utilizes these values in achieving our vision by working together to solve complex issues and finding ways to empower our students to succeed in a rapidly changing world.

We dedicate ourselves to creating a stronger collaborative environment where we hear and respond to the different perspectives of our internal and external communities to empower our students and meet the needs of Texas.

The connectivity created by building a culture based on UNT's values drives our success across all planning areas and enhances our reputation as an innovative, next-generation institution.

Location

The Dallas-Fort Worth area is one of the largest, most dynamic regions in the United States and home to many of the nation's fastest-growing cities. As the largest R1 research university in North Texas, UNT is an essential asset for our region, our state and our nation, driving new knowledge and insights that power Texas' global leadership in business, technology, manufacturing and the arts.

Denton

Denton, a town of nearly 170,000 people located 40 miles north of Dallas and Fort Worth, is the home of UNT's main campus. The university occupies more than 1,017 acres across three counties and maintains 176 buildings including Discovery Park, a 610,000-square-foot research facility, accessible from the main campus by shuttle buses. The main campus is easy to walk or bike to, as are residence halls, athletic facilities and other areas of campus.

Frisco

Located about 25 miles southeast of Denton, Frisco is one of the fastest-growing cities in the nation. UNT teaches more than 3,300 students at its Frisco Landing and Inspire Park locations. UNT at Frisco offers a unique portfolio of courses and programs aligned with employers' needs, with the flexibility and support today's students require. By emphasizing applied projects developed together with employers and using new educational technologies, UNT at Frisco creates an agile, interdisciplinary environment where collaboration thrives. More information can be found at frisco.unt.edu.

Online

As one of the largest providers of online credit courses among Texas public universities, UNT offers 90 online program options — including bachelor's, master's and doctoral degrees and undergraduate and graduate certificates. Many programs include flexible learning options at the Denton and Frisco campuses. Information about UNT's online offerings may be found at UNT Online, while the Online Student Experience web site will help students navigate online learning and stay connected with the Mean Green Family.

Colleges

UNT offers 242 degrees through the university's 10 colleges. A list of the colleges may be found to the left.

These colleges offer the degrees, majors, concentrations under majors, minors, certifications, and preprofessional programs listed under Majors, Minors, Certificates in this catalog. See individual areas in this catalog for information about undergraduate offerings. Information about advanced offerings may be found in the *Graduate Catalog*.

Accreditation and Institutional Memberships

The University of North Texas offers many accredited programs and holds membership in a variety of associations and councils. Students may find a list of these accrediting bodies and institutional memberships on the Accreditation page of this catalog.

Administration, Faculty and Librarians

Administration

UNT is led by a team of administrators who focus on academic excellence, digital innovation, financial management, student enrollment and student affairs. Students may find information about UNT's administration on the UNT President's Leadership page.

Faculty

The UNT faculty's leadership has created national and international reputations in excellence for many academic programs. More information about UNT's faculty may be found online:

- Faculty Information System: Information about individual faculty members and librarians, including the universities they've attended and any courses they teach
- Research and Innovation: Information about current research projects, honors and awards earned by UNT faculty members

Librarians

UNT's librarians provide literacy instruction, research consultation and act as liaisons between university departments and collection development staff.

Additional Information

For more information on UNT's current Board of Regents, UNT and System administrators, emeritus faculty, and emeritus librarians, please visit the Administration, Faculty and Librarians page of this catalog.

Student Life

A wide array of student organizations gives UNT students the opportunity to build friendships with people of both similar and varied interests and provides avenues for organized and meaningful service. Student organizations represent many areas of interest, such as

- Service professional
- Political
- Academic
- Spiritual
- Athletic
- Residential
- Greek

Being involved in a student organization promotes a sense of community and connection to the university, while serving to enhance the social, intellectual and developmental growth of students. For more information, see the Campus and Community Resources section of this catalog, call the Student Activities Center at 940-565-3807 or visit studentactivities.unt.edu.

Community Involvement

UNT also offers many opportunities for students to be involved in the wider Denton community through volunteer opportunities, while keeping the community involved with UNT by hosting youth camps and programs, providing lifelong learning and professional development opportunities and providing many public services and resources. More information about opportunities to interact with the Denton community may be found on the Community & Visitors page of the UNT website.

History of the University

UNT was founded in 1890 as the Texas Normal College and Teachers' Training Institute. Joshua C. Chilton, the founding president, leased facilities above a hardware store on Denton's square to establish a teacher training institute. His opening-day remarks remain an important part of UNT's value system: "It will be our aim to become leaders in the education of the young men and women of Texas, fitting them to creditably fill the most important positions in business and professional circles. We desire the cooperation of all who believe in higher education and who want to see our state in the very front of intellectual as well as material progress."

The university has had seven names through the years:

1890: Texas Normal College and Teacher Training Institute
1894: North Texas Normal College
1901: North Texas State Normal College
1923: North Texas State Teachers College
1949: North Texas State College
1961: North Texas State University
1988: University of North Texas

Incoming students choose UNT for its innovative programs designed to meet the ever-changing needs of the future. UNT "firsts" through the years include:

- First jazz studies program in the U.S.
- First undergraduate emergency administration and planning program in the U.S.
- First bachelor's degree in digital retailing and in consumer experience management in the U.S. and first Master of Science program in merchandising offered completely online
- First retail program in the U.S. to integrate courses in merchandising, digital retailing, store operations, finance and retail strategy
- First school library certification program in the U.S. offered completely online
- First graduate applied anthropology program in the U.S. offered completely online
- First undergraduate program in applied behavior analysis in the U.S. and first accredited master's program in behavior analysis in the world
- First and only Ph.D. program in art education in Texas
- World's first graduate program in environmental philosophy and world's first field station in environmental philosophy, science and policy at Cape Horn, Chile
- First four-year aviation logistics program at a university in Texas and only such program in the nation
- First master's program in international sustainable tourism in the U.S.
- First M.S. program in artificial intelligence in Texas

Roles of the Chancellor and President

From 1981 until 2000, the role of the president also carried the responsibilities and title of Chancellor of the University and the University of North Texas Health Science Center at Fort Worth. Senate Bill 751 of the 76th Texas Legislature provided for the establishment of the University of North Texas System, and in July 1999, the Texas Higher Education Coordinating Board confirmed formal system status for the UNT System Center (now in Dallas), including the Denton campus, UNTHSC at Fort Worth and the UNT Dallas Campus. In October 2000, the positions of president and chancellor were officially separated.

UNT Presidents

Joshua C. Chilton (1890–1893)
John J. Crumley (1893–1894)
Menter B. Terrill (1894–1901)
J.S. Kendall (1901–1906)
W.H. Bruce (1906–1923)
Robert L. Marquis (1923–1934)
W.J. McConnell (1934–1951)
J.C. Matthews (1951–1968)
John J. Kamerick (1968–1970)
John L. Carter, Jr. (acting, 1970–1971)
C.C. Nolen (1971–1979)
John L. Carter, Jr. (acting, 1979–1980)
Frank E. Vandiver (1980–1981)
Howard W. Smith Jr. (ad interim, 1981–1982)
Alfred F. Hurley (1982–2000)
Norval F. Pohl (2000–2006)
Gretchen M. Bataille (2006–2010)
Phillip C. Diebel (ad interim, 2010)
V. Lane Rawlins (2010–2014)
Neal J. Smatresk (2014–2024)
Harrison Keller (2024–present)

UNT Chancellors

Frank E. Vandiver (1981)
Howard W. Smith, Jr. (ad interim, 1981)
Alfred F. Hurley (1981–2002)
Lee Jackson (2002–2017)
Lesa Roe (2017-2021)
Michael R. Williams (2022-present)

On August 24, 2002, the UNT Board of Regents named Alfred F. Hurley Chancellor Emeritus of the UNT System and President Emeritus of the university.

Accreditation

Accrediting Organizations

University of North Texas is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, masters, and doctorate degrees. University of North Texas also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of University of North Texas may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Please note: SACSCOC should be contacted only to inquire about the accreditation status of UNT, to ask questions about the accreditation process, or to pursue procedures for filing complaints against UNT. General inquiries, such as admission requirements, financial aid, and educational programs, should be addressed directly to UNT and not SACSCOC's office.

In addition, the University of North Texas offers programs accredited by the following organizations.

AACSB International — The Association to Advance Collegiate Schools of Business
ABET-Computing Accreditation Commission
ABET-Engineering Accreditation Commission
ABET-Engineering Technology Accreditation Commission
Accreditation Commission for Programs in Hospitality Administration
Accrediting Council on Education in Journalism and Mass Communications
American Academy of Forensic Sciences-FEPAC
American Chemical Society
American Council for Construction Education (ACCE)
American Library Association
American Psychological Association Commission on Accreditation
American Speech-Language-Hearing Association
Association for Behavior Analysis International
Council for Accreditation of Counseling and Related Educational Programs
Council for Interior Design Accreditation
Council on Social Work Education
National Association of Schools of Art and Design
National Association of Schools of Music
Network of Schools of Public Policy, Affairs, and Administration
Texas State Board for Educator Certification
Textile and Apparel Program Accreditation Commission (TAPAC)

Memberships and Affiliations

The University of North Texas holds the following memberships.

American Association of Family and Consumer Sciences
American Association of State Colleges and Universities
American College Dance Festival Association
American Collegiate Retailing Association
American Council on Education
American Hotel and Lodging Association
American Institute of Indian Studies
American Mathematical Society
American Political Science Association
Association for Symbolic Logic
Association of Public and Land Grant Universities (APLU)
Association of Texas Colleges and Universities
Association of Texas Graduate Schools
Association of Women in Mathematics
Broadcast Education Association
Coalition of Urban and Metropolitan Universities
Conference of Southern Graduate Schools
Council for Higher Education Accreditation
Council for Public University Presidents and Chancellors
Council of Graduate Schools
Council on Undergraduate Research
Federation of North Texas Area Universities
Greater Denton Arts Council
Hospitality Sales and Marketing Association International
Institute of Internal Auditors
Institute of Management Accountants
Institute of International Education
International Council on Hotel, Restaurant and Institutional Education
International Textile and Apparel Association
Mathematical Association of America
Mid-American Universities International
National Collegiate Honors Council
National Restaurant Association
National Retail Federation
National Women's Studies Association
Oak Ridge Associated Universities
Society for Cinema and Media Studies
Texas Association of Broadcast Educators
Texas Educational Theatre Association
University Film and Video Association

Accrediting Organization Addresses

The University of North Texas offers programs accredited by the following organizations:

AACSB International—The Association to Advance Collegiate Schools of Business
777 South Harbour Island Blvd, Suite 750
Tampa, FL 33602-5370
813-769-6500
www.aacsb.edu

ABET
Accreditation Board of Engineering and Technology
415 North Charles Street
Baltimore, MD 21201
410-347-7700
www.abet.org

Accreditation Commission for Programs in Hospitality Administration (ACPHA)
PO Box 400
Oxford, MD 21654
410-226-5527
www.acpha-cahm.org

Accrediting Council on Education in Journalism and Mass Communications
University of Kansas School of Journalism
Stauffer-Flint Hall 1435 Jayhawk Blvd.
Lawrence, KS 66045
785-864-3973
www.acejmc.org

American Academy of Forensic Science-FEPAC
410 North 21st Street
Colorado Springs, CO 80904
719-636-1100
www.aafs.org

American Chemical Society
1155 Sixteenth Street NW
Washington, DC 20036
800-333-9511
www.chemistry.org

American Council for Construction Education
300 Decker Dr., Suite 300
Irving, TX 75062
www.acce-hq.org

American Library Association
50 East Huron Street
Chicago, IL 60611
800-545-2433
www.ala.org

American Psychological Association Commission on Accreditation
Commission on Accreditation, Office of Program Consultation and Accreditation
750 First Street, NE
Washington, DC 20002-4242
202-336-5500
www.apa.org/ed/accreditation

American Speech-Language-Hearing Association (ASHA)
Council on Academic Accreditation in Audiology and Speech-Language Pathology
2200 Research Blvd
Rockville, MD 20850
301-296-5700
www.asha.org

Association for Behavior Analysis International
550 W. Centre Avenue
Portage, MI 49024
269-492-9310
www.abainternational.org

Council for Accreditation of Counseling and Related Educational Programs (CACREP)
1001 North Fairfax St., Suite 510
Alexandria, VA 22314
703-535-5990
www.cacrep.org

Council for Interior Design Accreditation
206 Cesar E. Chavez Ave. SW, Suite 350
Grand Rapids, MI 49503-4014
616-458-0400
www.accredit-id.org

Council on Social Work Education
333 John Carlyle Street, Suite 400
Alexandria, VA 22314
703-683-8080
www.cswe.org

National Association of Schools of Art and Design
11250 Roger Bacon Drive, Suite 21
Reston, VA 20190-5248
703-437-0700
www.nasad.arts-accredit.org

National Association of Schools of Music
11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700
www.nasm.arts-accredit.org

Network of Schools of Public Policy, Affairs, and Administration
1029 Vermont Avenue, NW, Suite 1100
Washington, DC 20005
202-628-8965
www.naspaa.org

State Board for Educator Certification
1701 North Congress Avenue
Austin, TX 78701
512-463-9734
www.tea.state.tx.us

Textile and Apparel Accreditation Commission
P.O. Box 353
Dadeville, AL 36853
334-524-6821
tapacaccreditation.org/about

2026-27 Academic Calendar

- Fall 2026
- Spring 2027
- Summer 2027-Dates TBA

Dates are subject to change by official action of UNT.

Fall 2026 Calendar

KEY SEMESTER DATES	Full Term Aug 17 - Dec 11	8 Week I Session Aug 17 - Oct 9	8 Week II Session Oct 12-Dec 11
Schedule of Classes Available on myUNT	Mar 9	Mar 9	Mar 9
Registration Opens For specifics by student group/class, visit the registrar.unt.edu/when-can-i-register.	Mar 16	Mar 16	Mar 16
Prerequisite Drop Students not meeting course prerequisites may be dropped from their courses.	July 29	July 29	Oct 12
Regular Registration Ends	Aug 13	Aug 13	Oct 8
Late Registration—For Students not Registered for the Term Students registering late will incur a late registration fee of $75.	Aug 14-21	Aug 14-21	Oct 9-16
Last Day to Withdraw from Entire Term on myUNT Courses do not appear on the transcript. After this date, see Dean of Students to withdraw from the entire term.	Aug 16	Aug 16	Oct 11 if only 8 week II
Classes Begin	Aug 17	Aug 17	Oct 12
Last Day to Add a Class or Swap Sections A swap is switching sections of the same course in the same session.	Aug 21	Aug 21	Oct 16
Last Day to Drop a Class Section Without a W (Census) Courses dropped before this date will not appear on official transcript. (Dropping courses may impact financial aid and degree completion. See advisors.)	Aug 28	Aug 22	Oct 17
Drop with a Grade of W Begins Course appears on the transcript with a grade of W and tuition and fees remain. (Dropping courses may impact financial aid and degree completion. See advisors.)	Aug 29	Aug 23	Oct 18
Last day to change to pass/no pass grade option (undergrads)	Sept 25	Sept 4	Oct 30
Midpoint of the Semester	Oct 9	Sept 11	Nov 6
Last day for a student to drop a course or all courses with a grade of W	Nov 6	Sept 25	Nov 20
First day to request a grade of Incomplete	Nov 7	Sept 26	Nov 21
Pre-Finals Days	Dec 2-3	N/A	N/A
Last Regular Class Meeting	Dec 3	Oct 8	Dec 10
Reading Day—No Classes	Dec 4	N/A	N/A
Final Exams	Dec 7-11	Oct 9	Dec 11
Last Day of Session	Dec 11	Oct 9	Dec 11
University Grade Submission Deadline 4 p.m.	Dec 14	Oct 12	Dec 14
Grades/Academic Standing posted on the Official Transcript	Dec 16	Dec 16	Dec 16

Last Modified: 7/23/2025

Fall 2026 Holidays

Labor Day (no classes, university closed)	September 7, 2026
Thanksgiving Break (no classes)	November 23-29, 2026
University Commencement	December 10-12, 2026

Spring 2027 Calendar

KEY SEMESTER DATES	Full Semester Jan. 11-May 7	3 Week I Winter Session Dec. 14-Jan. 8	8 Week I Session Jan. 11-Mar. 5	8 Week II Session Mar. 15-May 7
Schedule of Classes Available on myUNT	Sept 21	Sept 21	Sept 21	Sept 21
Registration Opens For specifics by student group: https://registrar.unt.edu/when-can-i-register.	Oct 5	Oct 5	Oct 5	Oct 5
Prerequisite Drop Students not meeting course prerequisites will be dropped from their courses.	Dec 15	Dec 14	Dec 15	Mar 15
Regular Registration Ends	Jan 7	Dec 10	Jan 7	Mar 11
Late Registration—For Students not Registered for the Term	Jan 8-15	Dec 11-14	Jan 8-15	Mar 12-19
Last Day to Withdraw from Entire Term on myUNT Courses do not appear on the transcript. After this date, see Dean of Students to withdraw from the entire term.	Jan 10	Dec 13	Jan 10	Mar 14 (If 8 week II only)
Classes Begin	Jan 11	Dec 14	Jan 11	Mar 15
Last Day to Add a Class or Swap Sections A swap is switching sections of the same course in the same session.	Jan 15	Dec 14	Jan 15	Mar 15
Last Day to Drop a Class Section Without a W (Census) Courses dropped before this date will not appear on official transcript. (Dropping courses may impact financial aid and degree completion. See advisors.)	Jan 22	Dec 15	Jan 16	Mar 20
Drop with a Grade of W Begins Course appears on the transcript with a grade of W and tuition and fees remain. (Dropping courses may impact financial aid and degree completion. See advisors.)	Jan 23	Dec 16	Jan 17	Mar 21
Last day to change to pass/no pass grade option (undergrads)	Feb 19	Dec 18	Jan 29	April 2
Midpoint of the Semester	Mar 5	Dec 23	Feb 5	April 9
Last day for a student to drop a course or all courses with a grade of W	April 9	Jan 5	Feb 19	April 23
First day to request a grade of Incomplete	April 10	Jan 6	Feb 20	April 24
Pre-Finals Days	April 28-29	N/A	N/A	N/A
Last Regular Class Meeting	April 29	Jan 7	Mar 4	May 6
Reading Day—No Classes	April 30	N/A	N/A	N/A
Final Exams	May 1-7	Jan 8	Mar 5	May 7
Last Day Session	May 7	Jan 8	Mar 5	May 7
University Grade Submission Deadline 4 p.m.	May 10	Jan 11	Mar 8	May 10
Grades/Academic Standing posted on the Official Transcript 6 p.m.	May 12	May 12	May 12	May 12

Last Modified: 07/16/2026

Spring 2027 Holidays

Winter Break (no classes; university closed)	December 24-January 1
Martin Luther King Jr. Holiday	January 18
Spring Break	March 8-14
University Commencement	May 6-9

Summer 2027 Calendar

KEY SEMESTER DATES	3 Week I Session May 10 - May 28	5 Week I Session May 17 - June 18	10 Week Session May 17 - July 23	8 Week Session June 1 - July 23	5 Week II Session June 21 - July 23
Schedule of Classes Available on myUNT					
Registration Opens For specifics by student group/class, please visit When Can I Register page.					
Prerequisite Drop Students not meeting course prerequisites will be dropped from their courses.					
Regular Registration Ends					
Late Registration Period—For Students not Registered for the Term Students registering late will incur a late registration fee of $75. For payment deadlines, please refer to the Student Accounting page.					
Last Day to Withdraw from Entire Term on myUNT Courses do not appear on the transcript. After this date, see Dean of Students to withdraw from the entire term.					
Classes Begin					
Last Day to Add a Class or Swap Sections A swap is switching sections of the same course in the same session.					
Last Day to Drop a Class Section Without a W (Census) Courses dropped before this date will not appear on official transcript. (Dropping courses may impact financial aid and degree completion. See advisors.)					
Drop with a Grade of W Begins Course appears on the transcript with a grade of W and tuition and fees remain. (Dropping courses may impact financial aid and degree completion. See advisors.)					
Last day to change to pass/no pass grade option (undergrads)					
Midpoint of the semester					
Last day for a student to drop a course or all courses with a grade of W					
First day to request a grade of Incomplete					
Pre-Finals Days					
Last Regular Class Meeting					
Reading Day—No Classes					
Final Exams					
Last Day Session					
University Grade Submission Deadline 4 p.m.					
Grades/Academic Standing posted on the Official Transcript					

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Summer 2027 Holidays

Memorial Day—No Classes	May 31
Juneteenth Observance—No Classes	June 19
Independence Day—No Classes	July 4

Admission

The Admission page of this catalog includes information about requirements for admission to UNT, separated by type of student. It is recommended that students apply well in advance of stated application deadlines. The Office of Admissions may be contacted directly at the following:

Eagle Student Services Center, Room 305

Mailing address:
1155 Union Circle #311277
Denton, TX 76203-5017
940-565-2681
800-868-8211
Fax: 940-565-2408

E-mail: UnderGrad.Admissions@unt.edu
Admissions web site: admissions.unt.edu

Admission to UNT

Applicants to the University of North Texas must meet academic requirements outlined in this catalog or other applicable publications of the university. Admission decisions will be made after application fees, and all academic credentials are received and evaluated. Admissions Counselors are available to help students through the admissions process.

Admission policies are reviewed periodically and are subject to change. Check the UNT web site for the latest admission information or contact the Office of Admissions.

Programs With Specific Requirements

Some programs require that students meet additional requirements to be admitted to a particular program. Students should check the individual college admission pages for specific program requirements.

Freshmen Applicants

Freshmen are students applying to college for the first time. Potential students who completed college coursework before graduating from high school, but have not been admitted to and enrolled in a college or university following their high school graduation, follow the procedures for freshman applicants.

Application Materials

Application to the University of North Texas requires:

- Completion of the ApplyTexas Application for first-year students
  OR
- Completion of the Common Application for first-year students

- A non-refundable application fee (international applications may require a higher fee)
- Submission of transcripts from all institutions attended, even if the student does not wish to transfer the credit to UNT
- Standardized test scores (optional)*

Application deadlines may be found on the Office of Admissions website. All application materials must be on file by the deadline to be evaluated and processed for admission and enrollment at UNT.

Please refer to the Office of Admissions web site for further information.

* UNT is test-score-optional; however, submitting ACT/SAT test scores can help determine admission decisions, testing exemptions and scholarship opportunities. Students should visit their high school counselor or visit the SAT or ACT websites for more information. (The UNT institutional codes for score reporting purposes are SAT, 6481; ACT, 4136).

Policies and Requirements

Policies for the admission of new freshmen are established by the UNT Board of Regents. Texas Education Code TEC 51.803-51.809, the Uniform Admission Policy, requires applicants to four-year public universities meet college readiness standards through completion of certain high school graduation programs or equivalent or through SAT or ACT score benchmarks. Please refer to the section "Uniform Admission Policy (UAP)" on the Policies page of the catalog for more information. Students who attend an out-of-state high school are exempt from the UAP.

See the Admissions website for more information.

Students who do not meet the requirements for automatic or regular admission should refer to the section titled "Admission by Individual Review" for more information.

Texas Success Initiative

All Texas public institutions require undergraduate students to demonstrate readiness for college-level reading, writing and mathematics by earning minimum scores on TSI assessments. All incoming students must prove TSI exemption or submit TSI Assessment scores before they are allowed to register at orientation.

See "Texas Success Initiative" on the Registration and Schedule Adjustment page of the catalog for additional information.

Guaranteed Admission

Admission requirements vary by start term. Students applying to UNT may qualify for guaranteed admission if they meet certain requirements.

Refer to the Office of Admissions web site for more information.

Transfer Students

Any student new to UNT who has been enrolled at another college or university and has earned college credit after high school graduation prior to attendance at UNT.

Application Materials

Application to the University of North Texas requires:

- Completion of the ApplyTexas Application for transfer students
  OR
- Completion of the Common Application for transfer students

- A non-refundable application fee (international applications may require a higher fee)
- Submission of transcripts from all institutions attended, even if the student does not wish to transfer the credit to UNT

Application deadlines may be found on the Office of Admissions website. All application materials must be on file by the deadline to be evaluated and processed for admission and enrollment at UNT.

Admission requirements for transfer students are determined by the number of transferable credit hours the student has completed. Please refer to the Transfer Admissions web site for further information.

Transfer applicants who do not meet the requirements for regular transfer admission should refer to the "Admission by Individual Review" section for more information. All transfer applicants admitted by individual review may be required to participate in success programs as recommended.

Transfer of Credits

For information about transferring college credits to UNT, please refer to the Test, Prior Learning and Transfer Credit page.

Eagle Bound Program (Admissions Partnership Agreement)

The Eagle Bound Program is an admission partnership between UNT and several community college districts, including Collin College, the Dallas County Community College District (DCCCD), North Central Texas College (NCTC), Hill College, Grayson College and Weatherford College. The program allows students who meet UNT admission requirements to establish a concurrent admission relationship with UNT prior to completing their studies at their community college. Contact the Office of Admissions for additional information.

Note: Concurrent admission programs are subject to review.

International Students

Applicants on a temporary visa, who do not have a U.S. permanent resident card (green card), should apply as international students.

Application Materials

Application to the University of North Texas requires:

- Completion of the ApplyTexas Application
  OR
- Completion of the Common Application

- A non-refundable application fee (international applications may require a higher fee)
- Submission of transcripts from all institutions attended, even if the student does not wish to transfer the credit to UNT
- Diploma/certificate
- English Language Proficiency materials

Submit all application materials at least six months before the anticipated first semester of coursework.

Application deadlines may be found on the Office of Admissions website. All application materials must be on file by the deadline to be evaluated and processed for admission and enrollment at UNT.

English Language Proficiency Measure

All international applicants must show proof of English language proficiency in one of the following ways:

- Citizenship in an approved English-speaking country
- Complete a degree or coursework from an accredited institute in an approved country
- Submit an English Language/English Proficiency Exam
- Complete Level 6 at UNT's Intensive English Language Institute (IELI)

See English Language Proficiency requirements for more detailed information.

Conditional UNT Admission

Students who do not meet English Language Proficiency requirements for admission but are otherwise admissible may qualify for conditional admission in a future semester to UNT if they enroll at UNT's Intensive English Language Institute (IELI) and complete their IELI studies. Students seeking conditional admission should apply to both UNT and to IELI. Students should send the application, the application fee, and all documents for IELI admission to ieli@unt.edu.

English Language Study Only (IELI)

Admission to a UNT degree program is not required for admission to UNT's Intensive English Language Institute. Students interested in only studying English as a second language at UNT's Intensive English Language Institute should apply for admission at the Intensive English Language Institute (IELI).

Additional Requirements

International students who require an immigration form I-20 to study in the United States will request their initial I-20 by submitting required documents through iNorthTX after they have been fully admitted to UNT. See the International Student and Scholar Services Office for assistance with the initial I-20 process.

All students must complete the Texas Success Initiative (TSI) requirements. For more information, see the "Texas Success Initiative" section of the Registration and Schedule Adjustment page.

See the International Affairs New Students page for more information.

International Visiting Students

International students who are seeking degrees at institutions abroad with the intent to enroll at UNT for one to two semesters or a summer term before returning to their home institution, may only enroll at UNT for this period of time if their home institution has an agreement with UNT for such a collaboration. All agreements and programs of this nature are run through International Affairs, and international students at these UNT partner schools must apply through and be nominated by their home institution in order to participate in such a program.

Previously Admitted Students

Students who have previously attended UNT fall into the three categories: former, continuing and inactive continuing. The category a student falls under determines if they are required to reapply before enrolling in courses.

Former Students

Former students are students who have either just graduated or who have graduated and have not been enrolled at least once during the 12 consecutive months prior to planned enrollment. These students apply as graduate students, even if they are coming back to earn a second bachelor's degree. See the "Graduate Students" section on this page for more information.

Continuing Students

Students who have been officially enrolled at UNT at least once during the 12 consecutive months prior to the term/semester of planned enrollment and/or have not received a degree during the same period. Regularly admitted students who have been enrolled at UNT within the last year do not need to reapply for admission. Those who receive a degree and reapply to the university are considered new graduate students.

Inactive Continuing Students

Undergraduates who have not been officially enrolled at UNT in the last 12 consecutive months and who have not received a degree during the same period.

Inactive students who have not attended another institution are required to complete the following requirements to re-enroll:

- Complete the ApplyTexas Application for returning students
- If previous UNT enrollment was as a dual credit student, all academic credentials from all institutions attended are required prior to re-enrollment
- International students should contact the Office of International Admissions

Inactive students who have attended another institution are required to complete the following requirements to re-enroll:

- Complete the ApplyTexas Application for transfer students
- Submit official transcripts from all colleges attended since leaving UNT

Please refer to the Office of Admissions web site for further information.

Non-Degree-Seeking Undergraduate Students

Students who wish to take several courses at the undergraduate level without seeking a degree at UNT (including visiting and transient students from other institutions) may enroll as non-degree-seeking undergraduates. Students are eligible to take up to 15 semester credit hours. After completion of 15 semester credit hours, students must apply to seek a degree.

In certain circumstances, exceptions may be made to take additional coursework.

- Non-degree-seeking students are not eligible for financial aid.
- Non-degree seeking students may choose to either audit a course or take a class for a grade. Refer to the "Auditing" section of the Registration and Schedule Adjustment page of the catalog for information about auditing a course and related tuition and fees to make an appropriate decision.

- Non-degree seeking students taking on-campus courses are required to meet the state of Texas meningitis requirement.

Please refer to the Office of Admissions web site for further information.

Graduate Students

Individuals who hold a bachelor's degree or its equivalent from a regionally accredited institution and who wish to be considered for admission at UNT for the first time should go to the Graduate Studies at UNT web site. Applicants who hold a degree are considered graduate students, whether or not an additional degree is sought. General admission requirements to the Toulouse Graduate School (tgs.unt.edu), specific admission requirements to graduate degree programs and descriptions of graduate courses are available in the Graduate Catalog.

Other Types of Admission

High school students may be eligible for admission to the Texas Academy of Mathematics and Science or for Early Admission to UNT. Students not admitted during the regular admission process may have the opportunity to be admitted following a more in-depth review. The University of North Texas does not guarantee admission of all applicants.

Texas Academy of Mathematics and Science

The Texas Academy of Mathematics and Science (TAMS) is an early admission residential program on the campus of the University of North Texas for Texas high school students interested in pursuing STEM fields. Academy students take university courses taught by full-time UNT faculty and earn as many as 60 credit hours toward a baccalaureate degree. TAMS students complete a two-year program, regardless of the last high school grade they complete before beginning attendance at UNT. For additional information, see the TAMS Office of Admissions website or email tamsadmissions@unt.edu.

Early Admission

High school students may apply for early admission to the university. Students granted early admission may enroll concurrently at UNT during their senior year through coordination with the UNT Director of Admission and their high school.

See the Office of Admission website for requirements for early admission.

Admission by Individual Review

Individual Review is a process that allows UNT Admissions to review the application of any student who does not meet minimum admission requirements. Those found eligible for an Individual Review will be contacted via email with the opportunity to provide additional information to justify their admission to the university.

Factors that may help determine academic readiness under the individual review provision may include, but are not limited to: school attended, courses taken, employment experience, special abilities, individual achievements, leadership activities, public service and extra-curricular activities.

Admission or Re-enrollment as Related to Personal Conduct and Admission Falsification

The Director of Admissions is responsible for referring any application for admission or re-enrollment that indicates possible ineligibility of the applicant on grounds involving admission falsification to the Dean of Students. The potential of the applicant to benefit from university attendance will be carefully considered before permission to enroll will be granted.

Academic Fresh Start for Admissions Decisions

Texas residents with college credit that is five years or older may apply under the Academic Fresh Start Provision. Using this provision, applicants may request that UNT disregard all academic credits and grades earned more than five years prior to the semester of enrollment. These courses cannot be used to fulfill prerequisite requirements, cannot be used toward the requirements of the new degree and cannot be counted in GPA calculations. However, the semesters used to take those courses remain part of the student's academic record and may impact the student's eligibility for financial aid.

The request to use the Academic Fresh Start provision must be made at the time of application. Students can find more information about Academic Fresh Start on the Office of Admissions web site.

Test, Prior Learning and Transfer Credit

The Test, Prior Learning and Transfer Credit page describes credits students may have earned before being admitted to UNT. This includes test credit, for things like Advanced Placement Exams and College-Level Examination Program tests, prior learning credit, awarded for certificates, coursework taken for applied degrees, education experiences in the armed services, and transfer credit for work completed at another college or university. This work may have been completed before or after the student's high school graduation.

Test Credit

Students may take national tests, like Advanced Placement (AP) or College-Level Examination Program (CLEP), or local tests, like the Department of World Languages, Literatures and Cultures' Placement Tests, to earn college credit.

Course Credit Awarded for Tests

Students may be awarded course credit for advanced placement and credit by exams, based on specific rules and limitations. Credits earned by advanced placement and credit by exam are awarded grades of CR. These credits are not included in determining grade point averages at UNT, but is included in earned semester credit hours and on the UNT transcript.

The following restrictions apply:

- May not be used to reduce the university's residence requirement (see "Residence" on the Degree and Program Requirements page)
- May not be earned in any course the student has previously completed at any college or university
- May not be earned in any course that is a prerequisite to another course in the same subject for which the student has previously earned credit (i.e., if the student has already earned credit for ENGL 1320, they may not later earn credit for ENGL 1310, which is a prerequisite to ENGL 1320, by completing advanced placement or credit by exam)
- May not replace any grade, including an F, earned for a course in high school, at UNT or at another college or university

Departments determine how accepted test credits are applied to specific degrees. Students should speak with their advisor to determine if their test credits may be used toward the core curriculum, major requirements, or count as an elective.

The university periodically reviews the policies for awarding credit for exams and these policies are subject to change.

Advanced Placement (AP)

Students typically complete an Advanced Placement (AP) course in high school before taking an AP examination in that subject, but completion of an AP course is not a requirement for taking the exam.

- Entering freshmen who took an AP Exam for credit (and who requested their scores be sent to the University of North Texas, code 6481) will have their AP credit applied automatically to their UNT academic record
- Students may request that AP exams be applied to their transcript after their first term/semester, but they may be held to the standards in place the semester of the request, rather than those in place when the test was taken. Students should consult their academic advisor about the application of their AP credits. For more information or to request AP Scores be sent to UNT, visit the AP College Board website. Students who have questions about the receipt of their AP scores should contact the Office of the Registrar.

See the Advanced Placement (AP) examinations chart for a list of AP exams for which UNT currently awards credit.

College-Level Examination Program (CLEP)

Students may earn course credit for College-Level Examination Program (CLEP) Subject tests. Students should request their test scores be sent to UNT (code 6481).

- The Registrar's Office must certify CLEP Subject Examinations before credit is awarded
- **UNT does not grant credit for CLEP General Examinations**
- Students may not earn examination credit for any course failed

For more information, or to request official CLEP Transcripts be sent to UNT, go to the CLEP College Board website.

See the CLEP Examinations chart for a list of CLEP exams for which UNT currently awards credit.

International Baccalaureate (IB)

Students who complete an International Baccalaureate (IB) program may be awarded course credit for earning an IB diploma. If they do not earn the diploma upon completing the IB program, they may be awarded course credit for the completion of higher-level IB exams.

- IB diploma: minimum of 24 semester hours credit awarded, as long as the diploma is completed with a minimum score of 4 on each course used for the diploma.
- Higher-level IB exams: minimum 3 hours credit awarded per exam, dependent on the score received. A minimum score of 5 is required to earn college credit.

For more information or to request IB transcripts be sent to UNT, visit the International Baccalaureate website. The UNT institutional code for IB score reporting purposes is 01800.

See the International Baccalaureate (IB) chart for a list of IB exams for which UNT currently awards credit.

Prior Learning

Prior learning experience includes certificates, industry certifications, corporate trainings, etc. **An evaluation of documented prior learning is required before prior learning credit is awarded. There may be limitations on the number and type of prior learning credit applied to degree requirements.** Students should check with an advisor to determine if a prior learning experience can be applied to their degree.

Technical Credit

Technical credits awarded for a certificate, diploma, associate of applied science, or other applied program may be used toward an applied degree at UNT. Students in other degree programs may use a limited number of technical credits toward their degree. Students should check with an advisor to determine if their degree accepts technical credit and, if so, any limitations.

Educational Experience in the Armed Services

Credit may be given for formal service school courses completed in the armed services after evaluation of official documents by the Registrar's Office. The student's academic dean decides if credit awarded for such courses will be applied toward requirements for the bachelor's degree. Transfer students with military experience may maximize prior learning through UNT's Bachelor of Applied Arts and Science (BAAS) degree or the Bachelor of Applied Sciences degree in Learning Technologies. The BAAS and BAS degrees accept qualifying technical and prior learning credit to meet specified degree requirements.

Transfer Credit

Transfer credit is academic credit awarded for coursework taken at another college or university. This credit is awarded after an official transcript submitted to UNT has been evaluated by the Registrar's Office. Students may see their transfer credits on a degree audit once the transcript has been processed.

Transfer Credit Tools

Students transferring to UNT have access to two tools that can help determine how courses may transfer: the Transferology website and the Texas Common Course Numbering System (TCCNS) website.

Texas Common Course Numbering System (TCCNS)

Students who have completed lower-level coursework at a public college or university in Texas may use the Texas Common Course Numbering System (TCCNS) chart to determine if those courses are equivalent to a lower-level course offered at UNT. TCCNS equivalents are also included in parentheses on the individual course descriptions, when applicable. The provided information is subject to change and does not constitute a contract between UNT and the student or potential student. Prospective transfer students should contact the advising office of the college offering the intended major to determine how their coursework may be applied to the degree. More information about the Texas Common Course Numbering System may be found on the TCCNS website. The TCCNS website also includes an option for comparing the TCCNS courses offered by two schools to help determine how lower-level courses may transfer.

Transferology

Transferology is an interactive website that allows students to enter courses they have previously taken and courses they are interested in taking at another university to determine how those courses will apply toward degree requirements at UNT.

Transfer Hours from Another Institution

Students transferring coursework from another college or university to UNT should request that the other institution provide the UNT Office of Admissions or Registrar's Office a complete official transcript.

UNT determines acceptable transfer credit from other institutions based on an evaluation of the course's content as described in the catalogs of those institutions.

- Transfer credit may only be accepted for coursework completed at an accredited institution of higher education
- Transfer credit from other accredited institutions will be converted to semester hours and a 4.0 grading system (that mimics UNT's current grading system) for evaluation purposes, as appropriate

Transfer Credit Use

The student's academic dean determines if transfer credits can be used in their degree program. Students should request a review of any non-traditional or prior learning credit to see if the credits may be used to meet a degree requirement. Students seeking the Bachelor of Applied Arts and Sciences (BAAS) degree or the Bachelor of Applied Sciences degree in Learning Technologies should speak with an advisor about transferring coursework.

A transfer student's academic status is determined, in part, by the hours accepted as transfer credit. The transfer credit is used in determining:

- The student's classification (see "Student Classification" on Academic Policies and Procedures page)
- The student's requirements for Satisfactory Academic Progress
- The student's overall GPA. Grade points earned at other colleges and universities are excluded from the UNT-CGPA. See "Grade Point Averages" on Academic Policies and Procedures page.

Students should contact their advisor or the Registrar's Office for more information about their academic status.

Course Transfer after Admission

Students who are taking courses at UNT and have attained junior standing may, only with the *prior written consent* of their academic dean, enroll in and transfer hours from approved two-year colleges. Because of the time required for receipt of transcripts, students otherwise eligible for graduation who complete their last course or courses elsewhere do not graduate at the end of the term/semester or summer session in which the work is completed, but receive their degrees at the close of a subsequent UNT term/semester or summer session.

Correspondence Course Credit

A student who has been admitted to and begun taking courses at UNT who wishes to enroll concurrently in correspondence courses at another accredited institution must first secure the *written permission* of the student's academic dean at UNT. Failure to obtain advance approval may result in the refusal of the university to accept such work in transfer.

- No more than 18 hours of correspondence courses from an accredited institution may be transferred to UNT and used toward a degree program
- No more than 30 hours of the total number required for any degree may be earned by a combination of correspondence and extension
- A maximum of 6 hours of upper-level correspondence work completed in transfer will be accepted toward a degree program at UNT
- Graduate credit is not accepted in transfer through correspondence study

Transfer Credit Corrections

A student's transfer credit may be audited during the student's academic career at UNT. Accepted transfer credit may be increased or decreased to correct a prior evaluation and to ensure compliance with UNT academic policies.

Students who feel their transfer credit has been misapplied may request an audit by their academic advisor. A course syllabus from the originating institution may be requested for a more in-depth review of the coursework.

Advanced Placement (AP) examinations

Students who have received college-level training in secondary school and who present applicable scores on the appropriate Advanced Placement Examination will be granted, on request, placement and credit for comparable courses at the university following enrollment.

AP Examination	AP Exam score	Semester credit hours	UNT course equivalent
Composition and Literature			
English Language and Composition	3 or 4	3	ENGL 1310
	5	6	ENGL 1310, ENGL 1320
English Literature and Composition	3, 4 or 5	3	ENGL 2331
Fine Arts			
Art History	3, 4 or 5	3	ART 2350 or ART 2360 or ART 2370 (with a score of 3 or higher, student can choose one in consult with an academic advisor)
Studio Art – Drawing Portfolio	3, 4 or 5	3	ART 1600
Studio Art – 2D Design	3, 4 or 5	3	ART 1800
Studio Art – 3D Design	3, 4 or 5	3	ART 1700
Languages			
Chinese Language	3	6	LANG 1010, LANG 1020
	4	9	LANG 1010, LANG 1010, LANG 2040
	5	12	LANG 1010, LANG 1010, LANG 2040, LANG 2050
French Language	3	6	FREN 1010, FREN 1020
	4	9	FREN 1010, FREN 1020, FREN 2040
	5	12	FREN 1010, FREN 1020, FREN 2040, FREN 2050
German Language	3	6	GERM 1010, GERM 1020
	4	9	GERM 1010, GERM 1020, GERM 2040
	5	12	GERM 1010, GERM 1020, GERM 2040, GERM 2050
Italian Language	3	6	ITAL 1010, ITAL 1020
	4	9	ITAL 1010, ITAL 1020, ITAL 2040
	5	12	ITAL 1010, ITAL 1020, ITAL 2040, ITAL 2050
Japanese Language	3	6	JAPN 1010, JAPN 1020
	4	9	JAPN 1010, JAPN 1020, JAPN 2040
	5	12	JAPN 1010, JAPN 1020, JAPN 2040, JAPN 2050
Latin – Vergil	3	6	LATI 1010, LATI 1020
	4	9	LATI 1010, LATI 1020, LATI 2040
	5	12	LATI 1010, LATI 1020, LATI 2040, LATI 2050
Spanish Language	3	6	SPAN 1010, SPAN 1020
	4	9	SPAN 1010, SPAN 1020, SPAN 2040
	5	12	SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050
Spanish Literature and Culture	3, 4 or 5	3	SPAN 3110
Mathematics			
Calculus AB	3, 4 or 5	4	MATH 1710
Calculus BC	3, 4 or 5	7	MATH 1710, MATH 1720
Calculus AB Subscore for the Calculus BC exam	3, 4 or 5	4	MATH 1710
Precalculus	3, 4 or 5	5	MATH 1650
Statistics	3, 4 or 5	3	MATH 1680
Natural and Computer Sciences			
Biology	3	6	BIOL 1112, BIOL 1142
	4 or 5	8	BIOL 1710, BIOL 1720, BIOL 1760
Chemistry	3	3	CHEM 1360
	4	4	CHEM 1410/CHEM 1430
	5	8	CHEM 1410/CHEM 1430, CHEM 1420/CHEM 1440

AP Examination	AP Exam score	Semester credit hours	UNT course equivalent
Computer Science A	3	3	CSCE 1010
	4 or 5	4	CSCE 1030
Computer Science - Computer science principles	3, 4 or 5	3	CSCE 1010
Environmental Science	3, 4 or 5	3	BIOL 1132
Physics 1	3	3	PHYS 1210
	4 or 5	4	PHYS 1410/PHYS 1430
Physics 2	3	3	PHYS 1315
	4 or 5	4	PHYS 1420/PHYS 1440
Physics C (Electricity and magnetism)	3	4	PHYS 1420/PHYS 1440
	4 or 5	4	PHYS 2220/PHYS 2240
Physics C (Mechanics)	3	4	PHYS 1410/PHYS 1430
	4 or 5	4	PHYS 1710/PHYS 1730
Social Sciences and History			
African American Studies	3, 4 or 5	3	History elective hours
Economics- macroeconomics	3, 4 or 5	3	ECON 1110
Economics- microeconomics	3, 4 or 5	3	ECON 1100
Government and Politics – Comparative	3, 4 or 5	3	Political science elective hours
Government and Politics – U.S.	3, 4 or 5	3	PSCI 2305
History – European	3, 4 or 5	6	History elective hours
History – U.S.	3, 4 or 5	6	HIST 2610, HIST 2620
History – World	3, 4 or 5	6	HIST 1050, HIST 1060
Human Geography	3, 4 or 5	3	GEOG 2170
Psychology	3, 4 or 5	3	PSYC 1630

The College Board Advanced Placement Examinations are offered in May each year and are administered by The College Board in most school districts. Students typically complete an AP course offered by their high school before taking an AP examination in that subject. However, in consideration of homeschooled students and students whose schools do not offer AP courses, The College Board does not require a student to complete an AP course before taking an AP examination. All requests for information should be directed to the Advanced Placement Program of The College Board, http://apstudent.collegeboard.org.

CLEP Examinations

CLEP Examination	CollegeBoard score	Semester credit hours	UNT course equivalent
World Languages			
French Language, Level 1 & 2	50	6	FREN 1010, FREN 1020
French Language, Level 1 & 2	59	12	FREN 1010, FREN 1020, FREN 2040, FREN 2050
German Language, Level 1 & 2	50	6	GERM 1010, GERM 1020
German Language, Level 1 & 2	60	12	GERM 1010, GERM 1020, GERM 2040, GERM 2050
Spanish Language, Level 1 & 2	50	6	SPAN 1010, SPAN 1020
Spanish Language, Level 1 & 2	63	12	SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050
Spanish with Writing, Level 1 & 2	50	6	SPAN 1010, SPAN 1020
Spanish with Writing, Level 1 & 2	63	12	SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050
Mathematics			
College Algebra	50	3	MATH 1100
College Mathematics	50	3	MATH 1580
Pre-Calculus	50	5	MATH 1650
Calculus	50	4	MATH 1710
Trigonometry	50	3	MATH 1600
Natural Science			
General Biology	50	6	BIOL 1710, BIOL 1720
General Chemistry	50	6	CHEM 1410, CHEM 1420
Social Sciences and History			
American Government	50	3	PSCI 2305
History of the United States I	50	3	HIST 2610
History of the United States II	50	3	HIST 2620
Human Growth and Development	50	3	PSYC 2480
Introduction Educational Psychology	50	3	PSYC 1650
Introductory Psychology	50	3	PSYC 1630
Introduction Sociology	50	3	SOCI 1510
Principles of Macroeconomics	50	3	ECON 1110
Principles of Microeconomics	50	3	ECON 1100
Western Civilization I: Ancient Near East to 1648	50	3	HIST 1000-level elective
Western Civilization II: 1648 to the Present	50	3	HIST 1000-level elective
Information Systems			
Information Systems	50	3	CSCE 1000-level elective

International Baccalaureate (IB)

UNT awards a minimum of 24 semester hours of credit to students who have completed the International Baccalaureate Program and have received the International Baccalaureate Diploma. Students must earn a minimum score of 4 on tests that count toward the diploma. The Registrar's Office will certify the examination credit based on the qualifying scores.

A student who has completed a high school International Baccalaureate Program but has not earned the diploma and who has scored 5, 6 or 7 on the higher level IB examination will receive college credit at UNT. Credit is awarded as listed in the chart below.

Note: The minimum score requirements for awarding credit based upon International Baccalaureate examinations is under review and subject to change.

The IB institution code for UNT is 01800. Students should use this code when requesting to have IB scores sent to the UNT Admissions Office.

Subject area	IB exam score	Hours	UNT equivalent
Arabic – Language AB	5, 6 or 7	12	ARBC 1010, ARBC 1020, ARBC 2040, ARBC 2050
Arabic – Language B	5, 6 or 7	12	ARBC 1010, ARBC 1020, ARBC 2040, ARBC 2050
Art/Design	5, 6 or 7	3	ART 2900, applied to degree audit as lower-level elective (see COVAD policy regarding IB Credit)
Biology	5, 6 or 7	8	BIOL 1710, BIOL 1720, BIOL 1760
Business Management	5, 6 or 7	3	MGMT 1000-level elective
Chemistry	5, 6 or 7	8	CHEM 1410/CHEM 1430, CHEM 1420/CHEM 1440
Chinese – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Chinese – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Computer Science Computing Studies	5, 6 or 7	7	CSCE 1030, CSCE 1040
Dance	5, 6 or 7	3	DANC 2800
Danish – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Danish – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Design Tech	5, 6 or 7	3	General 1000-level elective
Digital Society	5, 6 or 7	3	General 1000-level elective
Dutch – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Dutch – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Economics	5, 6 or 7	3	ECON 1110
English A: Language and Literature	5 6 or 7	6 12	ENGL 1310, ENGL 2331 ENGL 1310, ENGL 1320, ENGL 2331, ENGL 2341
English Language A: Literature	5 6 or 7	3 6	ENGL 2331 ENGL 2331, ENGL 2341
Environmental Systems and Societies	5, 6 or 7	3	BIOL 1132
Film	5, 6 or 7	3	MRTS 1000-level elective
Finnish A Literature	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
French – Language AB	5, 6 or 7	12	FREN 1010, FREN 1020, FREN 2040, FREN 2050
French – Language B	5, 6 or 7	12	FREN 1010, FREN 1020, FREN 2040, FREN 2050
Geography	5, 6 or 7	3	GEOG 1200
German – Language AB	5, 6 or 7	12	GERM 1010, GERM 1020, GERM 2040, GERM 2050
German – Language B	5, 6 or 7	12	GERM 1010, GERM 1020, GERM 2040, GERM 2050
Global Politics	5, 6 or 7	3	INST 2100
Hebrew – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Hebrew – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Hindi – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Hindi – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
History	5, 6 or 7	6	HIST 1060, HIST 1000-level elective
History – Culture of the Islamic World	5, 6 or 7	3	HIST 1000-level elective
History of Africa and the Middle East	5, 6 or 7	3	HIST 2000-level elective
History of Europe	5, 6 or 7	3	HIST 1000-level elective
History of the Americas	5, 6 or 7	3	HIST 1000-level elective
Information Technology in a Global Society	5, 6 or 7	6	SOCI 1000-level elective and PHIL 1000-level elective

Subject area	IB exam score	Hours	UNT equivalent
Italian – Language AB	5, 6 or 7	12	ITAL 1010, ITAL 1020, ITAL 2040, ITAL 2050
Italian – Language B	5, 6 or 7	12	ITAL 1010, ITAL 1020, ITAL 2040, ITAL 2050
Japanese – Language AB	5, 6 or 7	12	JAPN 1010, JAPN 1020, JAPN 2040, JAPN 2050
Japanese – Language B	5, 6 or 7	12	JAPN 1010, JAPN 1020, JAPN 2040, JAPN 2050
Latin – Language AB	5, 6 or 7	12	LATI 1010, LATI 1020, LATI 2040, LATI 2050
Latin – Language B	5, 6 or 7	12	LATI 1010, LATI 1020, LATI 2040, LATI 2050
Mandarin – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Mandarin – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Mathematics	5, 6 or 7	4	MATH 1710
Mathematics – Analysis and Approaches	5, 6 or 7	3	MATH 1580
Mathematics – Applications and Interpretation	5, 6 or 7	3	MATH 1580
Math Studies	5, 6 or 7	3	MATH 1580
Music General Performance	5, 6 or 7	3	MUSI 1000-level elective
Music HL	5, 6 or 7	3	MUGC 1000-level elective
Norwegian – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Norwegian – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Philosophy	5, 6 or 7	3	PHIL 1050
Physics	5, 6 or 7	8	PHYS 1410/PHYS 1430, PHYS 1420/PHYS 1440
Portuguese – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Portuguese – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Psychology	5, 6 or 7	3	PSYC 1630
Russian – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Russian – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Social and Cultural Anthropology	5, 6 or 7	3	ANTH 2300
Spanish – Language AB	5, 6 or 7	12	SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050
Spanish – Language B	5, 6 or 7	12	SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050
Sports, Exercise and Health Sciences	5, 6 or 7	3	PHED 1000
Swedish – Language AB	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Swedish – Language B	5, 6 or 7	12	LANG 1010, LANG 1020, LANG 2040, LANG 2050
Theatre	5, 6 or 7	3	THEA 2340
Visual Arts	5, 6 or 7	3	Visual arts elective

Academic Policies and Procedures

The Academic Policies and Procedures page contains information related to students' academic standing at the university, the grading system and policies in use at UNT, and policies related to student academic records, including the Federal Educational Rights and Privacy Act (FERPA).

Academic Standing (Status)

Academic standing is a student's official status, determined by their UNT cumulative grade point average (UNT-CGPA) and course completion rate. Academic standing is reviewed each long term/semester (fall/spring) and affects financial aid and enrollment.

There are four Academic Standing categories:

- Good Academic Standing
- Academic Alert
- Academic Probation
- Academic Suspension

Each student is responsible for knowing whether the minimum UNT-CGPA for each standing category has been achieved and whether they are eligible to re-enroll or remain enrolled in the university. The electronic grade report, available online at myUNT at the end of each term/semester, includes a statement of academic status and a UNT-CGPA summary on which the status is based. See the Academic Standing page on the Student Success Advising website for more information.

Transfer students admitted to UNT are also subject to minimum academic requirements. A transfer student whose grade point average on all work attempted at UNT does not meet the minimum UNT-CGPA requirement at the end of the first enrollment period is placed on academic alert or academic probation for the next period of enrollment.

Students in academic suspension are not eligible to enroll in courses during the long term/semester (fall/spring). Any student who has already enrolled for the next long term/semester, but becomes ineligible due to placement on academic suspension, will be withdrawn by the Registrar, regardless of whether the student has registered or pre-registered and paid fees. Special consideration will not be given to students on academic suspension who claim ignorance of their academic standing. If the cumulative record is believed to be incorrect, the student should contact the Registrar's Office.

Good Academic Standing

Students must maintain a minimum cumulative grade point average (UNT-CGPA) after each term of enrollment at UNT to remain in good academic standing. A UNT-CGPA of 1.8 is required at the end of the first term of enrollment at UNT. Each subsequent term of enrollment requires a minimum UNT-CGPA of 2.0. Please refer to the UNT-CGPA Calculation section below for information about calculating the UNT-CGPA.

Academic Alert

A freshman or first time in college (FTIC) student in their first semester at UNT is placed on academic alert if the UNT-CGPA achieved for a term falls below the minimum UNT-CGPA requirement.

To be removed from academic alert, the student must raise the UNT-CGPA to a minimum of 2.0 during the next period of enrollment. A student on academic alert who does not raise the UNT-CGPA to at least a minimum of 2.0 at the end of the next term/semester of enrollment is placed on academic probation.

Academic Probation

A student who is not classified as a freshman, first time in college (FTIC), or a student who is currently or has been on academic alert, is placed on academic probation at the end of any enrollment period in which the UNT-CGPA drops below the minimum UNT-CGPA requirement.

A student remains on academic probation at the end of any enrollment period in which the student earns at least a 2.25 GPA but does not achieve a 2.0 UNT-CGPA.

A student remains on academic probation during any summer enrollment in which the student fails to raise the UNT-CGPA to a 2.0.

A student who, during a probationary fall or spring term/semester, fails to raise the UNT-CGPA to a 2.0, or who fails to make at least a 2.25 GPA for the term/semester, is automatically suspended from UNT for one or more long terms/semesters.

Academic Suspension

A student who, during a probationary fall or spring term/semester, fails to raise the UNT-CGPA to a 2.0, or who fails to make at least a 2.25 for the term/semester, is automatically suspended from UNT for one or more long terms/semesters.

A student who is suspended from the university for failure to meet the standards is prohibited from re-enrolling for the following long term(s)/semester(s) as outlined below:

- First suspension - One long term/semester
- Second suspension - Two long terms/semesters
- Third suspension - Indefinite period

A student who has been suspended for an indefinite period may request, at the end of two calendar years from the time of the suspension, a review of the case by the appropriate academic dean. The student should be aware that course work taken at another institution while the student is suspended from the University of North Texas may not apply to a degree. A student who has been suspended from the University of North Texas re-enters on academic probation.

A student under academic suspension may attend the UNT summer enrollment periods with the approval of their college or school. Students should contact the academic advising office to request approval for summer enrollment. If, at the end of the summer enrollment period, a student raises the UNT-CGPA to a minimum of 2.0, the student will be reinstated in good academic standing.

Effects of Withdrawal on Academic Standing

Any student who withdraws from UNT at least two weeks before the first day of final exams for long terms/semesters or the equivalent dates for 3 week, 8 week and summer sessions is given grades of W and is not penalized with a reduced UNT-CGPA.

A student who does not officially withdraw from the university is held responsible for grades of F and is placed on alert, probation, or suspended from the university if the grades of F bring the UNT-CGPA below the minimum required.

For official dates and deadlines for withdrawal, refer to the 2026-27 Academic Calendar .

Dean's List and President's List

Undergraduate students (excluding post-baccalaureate students) who complete at least 12 hours of regularly graded course work in residence during the long session with a UNT term grade point average of 4.0 are eligible for recognition on the president's list. Students with a UNT term grade point average of 3.5 or above are eligible for recognition on the dean's list. Students are notified of this recognition by the president or the appropriate academic dean.

Classification of Students

Students are classified on the basis of term/semester hours passed. Semester hours passed are computed by adding transfer hours accepted, pass/no pass hours passed, graded hours passed and non-traditional credit accepted at UNT.

Classifications for students who have completed the following hours of college credit:

- **Freshman** - less than 30 semester hours
- **Sophomore** - 30 to 59 semester hours
- **Junior** - 60 to 89 semester hours

- **Senior** - 90 or more semester hours (and have not received a bachelor's degree)
- **Graduate Student -** graduated with a baccalaureate degree from an accredited college or university

Grades and Grading Policies

Grading System

UNT's grading system for undergraduate courses uses the letters A, B, C, D, F, CR, P, NP, I, and W. The letter Z is used to indicate that a grade was not properly received and/or recorded for a course.

A	—	Excellent work, four grade points for each semester hour.
B	—	Good work, three grade points for each semester hour.
C	—	Fair work, two grade points for each semester hour.
D	—	Passing work, one grade point for each semester hour.
F	—	Failure; given when a student (1) has failed the course while still officially enrolled at the end of the term/semester; (2) is failing a course and misses the final examination without satisfactory explanation; or (3) stops attending class without processing an official drop or withdrawal.
CR	—	Credit earned; credit awarded through (1) advanced placement (AP); (2) college level examination program (CLEP); (3) International Baccalaureate (IB); and (4) local exams; is equivalent to a grade of C or better; not included in the calculation of GPA. See also "Advanced placement and credit by exam" in the Admissions section of this catalog
P	—	Passed; a credit grade (1) on pass/no pass option, (2) on student teaching, and (3) in selected undergraduate and graduate individual problems, research, thesis and dissertation courses; is assigned for grades earned of D or better; not included in the calculation of GPA. See also "Pass/no pass option" in the Academic Policies section of this catalog.
NP	—	Not passed; a failing grade on the pass/no pass option; non-punitive.
I	—	Incomplete; a non-punitive grade given only during the last one-fourth of a term/semester and only if a student (1) is passing the course and (2) has justifiable and documented reason, beyond the control of the student (such as serious illness or military service), for not completing the work on schedule. The student must arrange with the instructor to finish the course at a later date by completing specific requirements. Grades of I will default to F after one year unless the instructor has designated a different automatic grade or a different lapse deadline on their grade roster. See also "Removal of I" policy on this page.
W	—	Drop or withdrawal without penalty. Given when a student drops a course or withdraws from the university prior to the designated day of a given semester's 10th week of class for the long terms/ semesters or corresponding dates for 8 week and summer sessions (specific dates are published in the online 2026-27 Academic Calendar). See regulations for dropping and withdrawing.

Note: No grade points are allowed for grades F, I, NP, P, W, or Z. (Use of WF grade was discontinued fall 2018.)

A complete record of all previously used grades and grading systems is detailed on the official transcript.

Pass/No Pass Option

Undergraduate Students

An incoming freshman or any undergraduate in good standing with a C average or better on all work attempted in residence at UNT may schedule one course a term/semester on the pass/no pass option. Seniors may elect more than one pass/no pass course during their final term/semester.

A maximum of 18 semester hours of credit under the pass/no pass option may be applied toward the bachelor's degree. Only courses counted as electives on the student's degree plan may be scheduled under the pass/no pass option. These hours are not used in calculating the grade point average, but count as full credit.

A grade of D or better will be shown as a P. If the course is not passed, the record will show NP. The hours attempted will not be used in calculating the grade point average.

A student may change to the pass/no pass option in the office of their academic dean/advisor any time before the end of the sixth week of class during the long semester, or the corresponding point of a 3-week session, an 8-week session, or summer session, provided eligibility requirements above are met. See the Academic Calendars by Semester page on the Registrar's Office website for dates.

Courses taken under the regular grading system may not be repeated as pass/no pass courses unless a grade of W was previously received.

A student who changes majors is not automatically denied credit for a pass/no pass course that becomes a degree audit requirement for the new major. The decision is made by the academic dean of the new department. **However, under no circumstances is a grade of P changed to a letter grade.**

Transfer students have the same pass/no pass privileges and restrictions, but they must pass 30 semester hours of regularly graded courses at UNT to be eligible for graduation.

Graduate Students

Graduate students may elect to take courses under the pass/no pass option only for undergraduate courses that are not required as a deficiency makeup or as a graduate degree requirement.

Certain graduate-level individual instruction courses are graded pass/ no pass when the department's faculty have voted to use this grading system for individual instruction. See the Academics page in the Graduate Catalog for more information.

Grade Point Averages

The Grade Point Average (GPA) is calculated by dividing the total number of grade points by the total number of semester hours attempted. The number of semester hours attempted includes all courses with grades of A, B, C, D, and F unless replaced by a later grade.

Each letter grade count is as follows:

- A = 4 points per semester credit hour
- B = 3 points per semester credit hour
- C = 2 points per semester credit hour
- D = 1 point per semester credit hour
- F = 0 points per semester credit hour

Courses in which the student received grades of I, NP, P, CR, W, or Z are **not** included in the calculation.

The GPA that appears on grade reports does not include correspondence, extension or transfer work.

All GPA calculations are subject to post-audit and correction by the Registrar's Office.

Overall Grade Point Average (OGPA)

The OGPA includes transfer and University of North Texas attempted hours. It is used to determine:

- Class loads
- Eligibility for admission to the university and certain programs

- Eligibility for graduation
- Calculation for Latin honors for graduation

UNT Cumulative Grade Point Average (UNT-CGPA)

The UNT-CGPA includes attempted hours at the University of North Texas. It is used to determine a student's academic standing. It is not necessarily related to the grade point average that governs eligibility for graduation or graduating with honors.

UNT-CGPA Calculation

The UNT-CGPA is calculated by dividing the total number of grade points earned in residence at UNT by the total number of graded semester credit hours (SCH) attempted in residence at UNT.

The UNT-CGPA is used to determine a student's academic standing and may be used to determine eligibility into certain programs.

Retaking a Course and Grade Replacement

A student may take a course a second or subsequent time to replace certain grades but cannot earn duplicate credit for the same course.

When retaking a course for grade replacement:

- Earned grades of C, D, or F are eligible for grade replacement. All other grades are not eligible.
- The highest grade will be used for degree applicability.
- Only one grade replacement may be used for a course. **Once the highest grade is applied, only the earliest grade attempt will be excluded from the UNT GPA.** If you repeat a course three times, below is an example of what would occur:
    - Spring 2026: ENGL 1310 Earned Grade of D
        - Excluded from UNT GPA, earliest graded attempt
    - Summer 2026: ENGL 1310 Earned Grade of C
        - Highest grade, included in UNT GPA, and used toward degree requirements
    - Fall 2026: ENGL 1310 Earned Grade of F
        - Included in UNT GPA, not earliest attempt or best grade
- Courses may only be taken three times. Upon the third attempt, students may be charged additional tuition per state statute.
- Only courses taken at UNT are eligible for grade replacement.
- Remedial courses are not eligible for grade replacement.
- All grades for courses completed will remain on the student's academic record and will be visible on their official UNT Transcript.

The Registrar's Office will process grade replacement for retaken courses during the final grade reporting period at the end of each term.

Repeating courses may affect your current or future financial aid eligibility and Satisfactory Academic Progress. Please check with Financial Aid regarding your eligibility.

(Effective Fall 2026)

Grade Reports

The electronic grade report and academic standing are available online at my.unt.edu at the close of each term/semester. If the grade report or the academic standing is believed to be in error, the student should contact the Registrar's Office within 30 days following the first class day of the succeeding term/semester. At mid-term/semester in the long session, instructors may provide individual written warnings to students who are doing unsatisfactory class work.

Grade Books

University policy requires that grade books be retained by the departmental chair for five years.

Tests

University policy requires that departments retain tests for one year after the term/semester has been completed or return tests to students. If the tests are returned, students are responsible for producing the tests should a grade appeal be necessary.

Grade Changes

No grade except I may be removed from a student's record once properly recorded. Changes are not permitted after grades have been filed except to correct clerical errors. Requests for error correction must be initiated immediately after the close of the term/semester for which the grade was recorded.

Removal of I

A student may remove a grade of I within one year by completing the remaining work as agreed with the instructor. After the student has completed the remaining work by the given deadline, the instructor can submit a change of grade form through the UNT Grade Change workflow. When processing, the grade point average is adjusted accordingly and the student will be subject to academic penalty should any exist.

If a student does not complete the stipulated work within one year, unless a different deadline was indicated by the instructor, the grade of I will default to F unless the instructor has designated a different automatic grade. The GPA is adjusted accordingly and the student will be subject to academic penalty should any exist.

Grade Appeals Procedure

Students are responsible for meeting the standards of academic performance established for each course in which they are enrolled as well as requirements for completion of their academic programs. Faculty members are responsible for establishing standards of academic performance and for evaluating student performance in an equitable manner.

Faculty decisions in such matters are considered authoritative and can be overturned only when it has been determined that a grade was assigned in an inequitable, arbitrary, or erroneous manner. Students can find the procedure for appealing a grade in the grade appeal policy on the Policy website.

Transcripts

Certain obligations to the university must be resolved before an official transcript can be released. Electronic Official Transcripts and hard-copy transcripts can be ordered online. Students can also request a hard-copy transcript at the UNT One Stop on the second floor of the Eagle Student Services Center (ESSC).

For more information, see the Registrar's Office website for Ordering Official Transcripts.

Academic Records Policies

State Privacy Policy

State law, with few exceptions, gives individuals the right to be informed about the information UNT collects about them. It also gives individuals the right to receive and review collected information and the opportunity to have UNT change any incorrect information. UNT's privacy policy (no. 14.009) is available at policy.unt.edu/policy-manual.

Student Education Records (FERPA)

Pursuant to the Family Educational Rights and Privacy Act (FERPA), the university has established policies relating to the accessibility of student information in the custody of the University of North Texas. The UNT FERPA policy statement appears in its entirety in the UNT Policy Manual, policy number 07.018. Information not covered by FERPA will be released only in accordance with the policy on public information found in policy number 04.002 of the UNT Policy Manual. Requests for public information not subject to FERPA must be submitted to the university Public Information Officer in writing. The UNT Policy manual with the complete FERPA policy (07.018) can be found at policy.unt.edu/policy-manual.

FERPA affords students certain rights with respect to their education records. Students have the right to:

1. Inspect, review and receive copies of their own education record upon request to the appropriate records custodian (i.e.- Registrar, Dean, Department Head, or other appropriate official). The request must be provided in writing and must specifically identify the requested education records. The university will comply with all requests within forty-five (45) calendar days from the date the request was received.

   The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. Request the amendment of personal education records the student believes are inaccurate, misleading or a violation of privacy.

   The student should write to the Dean of Students Office, clearly identify the part of the record he or she wants changed, and specify why it is inaccurate or misleading. Students may request a hearing to review a denial of a request to amend educational records. Additional information regarding the hearing procedures will be provided to the student when notified of the decision to deny a request to amend. The right to amend education records does not apply to grade appeals.

3. Generally, FERPA requires written consent before personally identifiable information contained in a student's education records may be disclosed to a third party. However, FERPA authorizes disclosure of personally identifiable information without the student's consent under certain circumstances. One such exception is directory information.

   Directory information consists of a student's name; address; major field of study; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; enrollment status (e.g., undergraduate or graduate; full-time or part-time); classification; degrees, awards and honors received (including selection criteria); expected graduation date; dissertation and thesis titles; most recent previous school attended; and photograph.

   Directory information will be provided without a student's consent upon request unless the student files a request in the Registrar's Office asking that their directory information not be disclosed without specific authorization. The request should be submitted prior to the 12th class day in the fall and spring terms, the 2nd class day of a three-week session, or the 4th class day of a five-week summer session. A request to withhold information may be submitted after the stated deadline for a term or session, but information may be released between the deadline and receipt of the request. The university will comply with a student's request to have their information excluded from available directory information until the request is amended in writing.

The University of North Texas will disclose information from a student's education records without the written consent of the student to the following individuals or under the following conditions:

1. School officials who have a legitimate educational interest.
2. Parents when:
   a. the student is a dependent of the parent for tax purposes as evidenced by appropriate documentation, including the parent's most recent tax return or a student financial aid application;
   b. a health or safety emergency necessitates disclosure to protect the health or safety of the student or another individual; or
   c. the student is under 21 years of age at the time of the disclosure and the student has violated a federal, state, or local law or any rule or UNT policy governing the use or possession of alcohol or a controlled substance and UNT has found the student in violation of the Code of Student Conduct (UNT Policy 07.012).
3. Officials of another school to which a student seeks or intends to enroll or has already enrolled, upon written request, if the disclosure is for purposes related to the student's enrollment or transfer.
4. Certain officials of the U.S. Department of Education, the Comptroller General, the Attorney General of the United States, the U.S. Department of Veteran Affairs, and state and local educational authorities in connection with an audit or evaluation of federal or state supported education programs, or for the enforcement of or compliance with federal legal requirements that relate to those programs.
5. Financial aid personnel in conjunction with an application for or receipt of financial assistance, provided the disclosure is needed: (i) to determine the eligibility of the student for financial aid, (ii) to determine the amount of financial aid, (iii) to determine the conditions that will be imposed, or (iv) to enforce the terms or conditions of the financial aid.
6. Individuals delivering a judicial order or lawfully issued subpoena. The university will make reasonable efforts to notify the student before disclosing records in advance of compliance with the order or subpoena, except when directed not to do so by the court order or subpoena or when otherwise required by law.
7. Organizations conducting studies for or on behalf of UNT pursuant to a written agreement to develop, validate or administer predictive tests or student aid programs, or to improve instruction. Information from education records may only be used to meet the purposes of the study stated in the written agreement between the university and the organization(s) and must contain the current restrictions on redisclosure and destruction of information requirements applicable to information disclosed under this exception.
8. Accrediting organizations to carry out their accrediting functions.
9. To appropriate parties in a health or safety emergency. Appropriate parties include, but are not limited to, school officials, law enforcement officials, parents, and emergency/ medical personnel.
10. To victims of an alleged perpetrator of a crime of violence or a non-forcible sex offense, limited only to the final results of a UNT disciplinary proceeding regardless of whether UNT determines through its own investigation that a violation was committed.
11. To any member of the public in matters relating to sex offenders and information provided to UNT under relevant federal law.
12. To a court in which the university is defending itself against legal action initiated by a parent or eligible student.
13. To the originating party identified as the party that provided or created the record. This allows for returning documents, such as official transcripts, that appear to have been falsified back to the institution or school official identified as the creator or sender of the record for confirmation of its status as an authentic record.
14. Individuals requesting records for students who are deceased.

Individuals may file a complaint with the U.S. Department of Education if they believe the University of North Texas has failed to comply with the requirements of FERPA. The complaint should be sent to:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202

For information regarding the university's policy on access to student education records contact the university Registrar. For information regarding access to public information contact the UNT System Office of General Counsel.

Chosen Name Policy

Policy Statement

The University of North Texas recognizes that students may wish to identify themselves within the University community with a chosen first name and middle name that differs from their legal first and middle name.

Application of Policy

The election for a chosen name is for currently enrolled students.

Definitions

Legal name–The name that appears on government-issued identification. It is the primary name in the student record system.

Chosen first and middle name– A name a person uses to identify themself other than the legal name; students may not declare a chosen name for an inappropriate purpose, including, but not limited to, misrepresentation, use of derogatory terms, or avoiding legal or financial obligation.

Procedures and Responsibilities

I. Currently enrolled students may request a chosen first name and/or middle name they want to be known by, regardless of whether they have legally changed their name.

II. The University reserves the right to remove a chosen first and middle name if it is inappropriate, as defined above. Chosen names may not include symbols or numbers.

III. The legal name will continue to appear in university-related systems, business processes, and documents for reporting, for financial aid, on transcripts, for payroll and tax documents, and other records where use of legal first name is required by law or University policy.

- a. The University will make every attempt possible to use a student's chosen name.
  - A. Legal name must appear on/in the following places:
    1. Official Transcripts
    2. Enrollment verification forms
    3. International systems and documents
    4. Financial Aid systems and documents
    5. Tuition/fees, billing and refund systems and documents
    6. Human Resource, Employment Records
    7. State and Federal Reporting
  - B. In addition, the legal name will appear in most external-facing University documents, publications and communications. There are several exceptions to this policy:
    1. List of candidates for degree conferral; for publication on university websites, in the Commencement program, senior and honors events, and the graduation list (student may have the chosen first and middle name appear as opposed to legal first and middle name);
    2. The University-issued diploma (student may have the chosen first and middle name printed on the diploma by contacting the Registrar's Office at the time to apply for graduation);
    3. Most athletic promotional materials such as event programs, announcements during competition, and press releases;
    4. University marketing materials where a student has consented to have their name identified.

IV. The chosen name will appear in university systems including but not limited to the following, where use of legal name is NOT required by law or University policy.

- A. Chosen first and middle name may appear in the following places:
  1. Student Portal (including class rosters)
  2. Enterprise Information Systems (EIS)
  3. Student Learning Management System
  4. Degree Audits
  5. Student Evaluations
  6. Case Management Systems
  7. Student ID Card
  8. Dining
  9. Library
  10. Computer Labs
  11. Housing
  12. Student email address- Eagle Alert
  13. Thesis/Dissertations Initial Submission

Degree and Program Requirements

The Degree and Program Requirements page includes information about the types of programs offered at UNT, terms used to describe the different degree and program options, and the requirements students must meet to complete a program.

Degrees and Programs Offered

Degrees Offered

UNT offers the following degree types through the schools and colleges. Students can see a complete list of majors on the Majors, Minors, Certificates page of this catalog.

Bachelor of Applied Arts and Sciences **(BAAS)**
Bachelor of Applied Science **(BAS)**
Bachelor of Arts **(BA)**
Bachelor of Business Administration **(BBA)**
Bachelor of Fine Arts **(BFA)**
Bachelor of Music **(BM)**
Bachelor of Science **(BS)**
Bachelor of Science in Biochemistry **(BSBC)**
Bachelor of Science in Biology **(BSBIO)**
Bachelor of Science in Chemistry **(BSCHM)**
Bachelor of Science in Economics **(BSECO)**
Bachelor of Science in Engineering Technology **(BSET)**
Bachelor of Science in Mathematics **(BSMTH)**
Bachelor of Science in Medical Laboratory Sciences **(BSMLS)**
Bachelor of Science in Physics **(BSPHY)**
Bachelor of Social Work **(BSW)**

Other Programs Offered

Grad Track

Certain majors and minors at UNT offer a Grad Track option for exceptional students. See the individual program for specific requirements. Students:

- Submit application through the major department after completing at least 75 credit hours of coursework with a minimum cumulative GPA of 3.5
- May take up to 12 hours of graduate credit toward the undergraduate degree
- May begin taking graduate-level courses after completing 90 credit hours of coursework
- Must complete the bachelor's degree within one academic year of taking their first graduate course
- Must apply for admission to the graduate program, generally by the end of the first term in the Grad Track program

See the Majors, Minors, Certificates page for a complete list of Grad Track programs.

Teacher Certification

Students may take the coursework required for teacher certification through the University of North Texas, though UNT does not award the certificate. The Texas Education Agency awards teaching certificates under the authority of the State Board of Education, contingent upon the recommendation of the UNT College of Education. For more information, see the Educator Preparation Office in the College of Education.

Second Bachelor's Degree

Students may complete a second bachelor's degree after they have earned a bachelor's degree from an institution whose accreditation is recognized by the Texas Higher Education Coordinating Board or an equivalent credential from a foreign institution recognized by UNT. Students earning a second bachelor's degree must meet all current graduation and program-specific requirements, including a minimum of 24 new hours. These 24 hours must:

- Include 12 advanced hours in a field different from the major of the first bachelor's degree
- Be completed once the second bachelor's degree has been declared

Students are advised by the college that offers the second bachelor's degree and should contact Graduate Admissions for a second bachelor's application.

Undergraduate Academic Certificates

The University of North Texas offers upper-division undergraduate academic certificates to meet workforce needs, provide students with life/career skills and knowledge, and allow for specialization in academic disciplines. For a list of undergraduate academic certificates, see the Majors, Minors, Certificates page. Students may pursue an undergraduate academic certificate if they meet regular UNT admission requirements and meet the minimum academic standards for the academic discipline.

- Undergraduate academic certificates require 12–20 semester credit hours, the majority of which must be advanced
- Students are responsible for all prerequisites specified in course requirements, even if the prerequisite is not part of the certificate
- All hours required for the certificate are to be completed at UNT

Note: Hours used for attaining an undergraduate academic certificate could exclude a student from consideration for the $1,000 Tuition Rebate since all hours earned for the undergraduate academic certificate are counted in the total hours earned toward a degree.

Degree Terminology

Concentration

A concentration is a minimum of 18 semester credit hours of coursework in a recognized area of study within the academic discipline. Concentrations are included on UNT transcripts and diplomas.

Double Degree

A double degree requires the completion of the specified requirements for two different degree types (e.g., Bachelor of Science, Bachelor of Arts) at UNT. Students must meet all current graduation and program-specific requirements, including the major requirement (in both degrees) of a minimum of 24 unique hours, including 12 hours of advanced work. Major courses beyond the minimum requirement of 24 unique hours, may apply toward both degrees, if applicable. Students must graduate with both degrees simultaneously. If one degree is completed before the other, the second degree requires admission to post-baccalaureate status.

Double Major

A double major requires the completion of a minimum of 24 semester credit hours unique to each major, including 12 hours of advanced work. Both majors must fall under a single degree type (e.g., Bachelor of Science). A second major is not considered a concentration.

Dual Degree

A dual degree allows a student to study at two or more institutions simultaneously and earn a degree from both institutions. Dual degrees are established programs as shown in the catalog.

Emphasis

An emphasis is less than 12 semester credit hours of coursework in a focused area of study within an academic discipline. Emphases are not included on UNT transcripts or diplomas.

Grad Track

A Grad Track allows undergraduate students working toward their first bachelor's degree to apply up to 12 credit hours of approved graduate level courses to the requirements of an undergraduate degree and then transfer those credits to the graduate degree.

Major

A major requires a minimum of 24 semester hours in a given subject, including 12 hours of advanced work.

Minor

A minor requires at least 18 semester hours in a given subject, including 6 hours of advanced work. Specific course requirements are determined by the department offering the minor. Not all degrees require a minor.

Specialization

A specialization is a minimum of 12 semester credit hours of coursework in a focused area of study within an academic discipline. Specializations are not included on UNT transcripts or diplomas.

Degree Requirements

Students working toward a bachelor's degree at the University of North Texas must meet certain minimum requirements to be awarded the degree. Schools, colleges and departments may have additional requirements to qualify for graduation. The university minimums are below. Students should refer to the individual programs for a complete listing of the requirements and total number of hours prescribed for the specific degree.

Students complete the degree requirements listed in the catalog published the year they are admitted to the university (i.e., students admitted for Fall 2026 meet the requirements for the 2026-27 catalog), unless they have spoken with an advisor to change their catalog year. Students may find their catalog year on the degree audit. See "Graduation Under a Particular Catalog" in the Graduation section of this catalog for information about catalog options.

Minimum Hour Requirements

Students must complete a minimum of 120 semester hours to earn a degree at UNT. One course may be used to meet multiple requirements. Students should speak to an advisor to determine which courses can be used to meet more than one requirement. Schools, colleges and departments may have additional requirements to qualify for graduation. Students must complete:

- University Core Curriculum: 42 hours (See University Core Curriculum for the full requirements.)
- Major: minimum of 24 semester hours, at least 12 advanced
- Advanced Hours: minimum of 36 semester hours
- Residence: minimum of 25 percent of the total hours for the degree (e.g., 30 hours for a 120-hour degree) at UNT

Advanced-Hour Credit

Advanced-hour credit is earned for courses taken at the 3000- or 4000-level:

- A lower-level course that is substituted for a UNT upper-level course may not be used to satisfy advanced-hour requirements
- A lower-level course that, when transferred, is determined to be equivalent to a UNT upper-level course does not satisfy the requirement of advanced hours

Residence

Courses taken in residence are courses taken at UNT. Online courses offered through UNT may be used toward the residence requirement. This is separate from the residence used to determine in-state vs. out-of-state tuition. See Financial Information for more information about residence in regard to tuition and fees. Students must complete:

- A minimum of 24 hours of advanced work (3000 or 4000 level) at UNT
- A minimum of 12 hours of advanced work in the major (except for the BAAS degree) at UNT

Grade Requirements

Students must meet certain grade requirements, both overall and in certain courses, to show proficiency in their course work and be awarded a degree at UNT.

English Composition Proficiency

Students must have a grade of C or better in courses that meet the Communication requirement of the University Core Curriculum to show proficiency in English composition. Students who have earned a D in one or more of these two required courses must repeat the course and raise the grade to a C or better. Transfer students with more than 90 hours and who have earned a D in any of the basic English writing courses must retake the course during their first term/semester in residence.

Grade Point Average (GPA)

Students must meet both overall and cumulative GPA requirements to earn a degree at UNT. Schools, colleges and departments may have additional GPA requirements for specific degrees.

- A minimum overall grade point average (OGPA) of 2.000 (C) on all work attempted, including all transfer, correspondence, extension and residence work.
- A minimum cumulative GPA (UNT-CGPA) of 2.000 (C) on all work at UNT. Students may not use transfer credit to raise the GPA of work done at UNT.

College or School Requirements

Students must satisfactorily complete all degree requirements specified by the school or college in which the degree is offered. The college/school/department/academic program requirements may exceed the university minimum requirements.

Individual academic programs may require specific courses that also satisfy part of the University Core Curriculum. Students may be required to take more than the minimum number of hours required for the degree if they choose to meet the University Core Curriculum requirement using a different course.

Elective

An elective is a course not specifically required for a degree that is taken to reach the minimum number of hours needed for degree completion. Some majors include program-specific electives, where students choose from a list of courses. Electives may also be used to meet the advanced hour requirement of the degree. Students should speak to an advisor to determine the number of elective hours available in their degree and to determine which courses will best suit their degree and interests.

Degree Tools

Degree Audit

A degree audit is an official document prepared in the office of the student's academic dean that lists courses completed, courses to be completed, proficiency examinations and all other requirements for a particular degree. Students should have a degree audit prepared no later than the beginning of the junior year.

Four-Year Plans

A four-year plan is an example of one way a student may schedule courses to complete their degree in four years. Students can find examples of four-year plans on the Registrar's Office Undergraduate Four-year Plans and Transfer Guides (Course Sequencing Maps) page. The plans include:

- A suggested sequence for completing the required coursework in four years
- Texas Common Course Numbering System equivalents to assess how lower-level courses transferred from a Texas college or university might apply to the degree
- Additional information relevant for graduation

University Core Curriculum

Texas Core Curriculum

The state of Texas established the Texas Core Curriculum (TCC) for state-assisted institutions in 1997 (see Texas Education Code, Chapter 61, Subchapter S) to ensure that students graduate with breadth of knowledge gained through general education classes as well as depth of knowledge gained from courses in a major area of study. The TCC is administered through the Texas Higher Education Coordinating Board (THECB).

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning. Students who complete the core curriculum will be able to demonstrate both a "breadth" of knowledge as well as a "depth" of knowledge.

The state has aligned each of the core component/option areas with core objectives, which delineate the skills developed in each core course. Students will develop and exercise the following skills:

- **Critical Thinking Skills**, including creative thinking; innovation; inquiry; and analysis, evaluation and synthesis of information.
- **Communication Skills**, including effective development and interpretation and expression of ideas through written, oral and visual communication.
- **Empirical and Quantitative Skills**, including the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- **Teamwork**, including the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- **Personal Responsibility**, including the ability to connect choices, actions and consequences to ethical decision-making.
- **Social Responsibility**, including intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities.

University Core Curriculum Requirements

The core curriculum at UNT (referred to as University Core Curriculum) complies with the mandates of the 1997 Texas Legislature regarding requirements for state-assisted institutions.

Students are required to complete 42 semester credit hours in specific areas. Students select core courses to meet the state semester credit hour requirements for each foundational component area. More information about the Core Curriculum at UNT may be found in the UNT Student Success Guidebook on the Advising web site.

The nine core component/option areas (and the required semester credit hours to fulfill each area) are:

- Communication - 6 hours
- Mathematics - 3 hours
- Life and Physical Sciences - 6 hours
- American History - 6 hours
- Government/Political Science - 6 hours
- Creative Arts - 3 hours
- Language, Philosophy and Culture - 3 hours
- Social and Behavioral Sciences - 3 hours
- Component Area Options - 6 hours

Completing the University Core Curriculum at UNT

The following section provides students with the list of courses that will fulfill each core area. Any course with an asterisk (*) is an honors course and is only available for Honors College students.

Individual academic programs may require specific courses from within the UNT Core Curriculum. Students who wish to take courses that will fulfill both core and major requirements simultaneously should check with academic advisors for assistance in selecting core courses.

Students may also choose to use core courses to meet the minimum number of advanced hours required for their degree.

Communication, 6 hours

The Communication area focuses on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.

Students must take one course from Group 1 and one course from group 2. The courses are often taken in sequence (for example, students first take ENGL 1310, then take ENGL 1320 in the following semester). Students must receive a grade of C or higher in both courses to fulfill this core requirement.

Group 1

- ENGL 1310 - First-Year Writing I
- ENGL 1311 - Honors First-Year Writing I *
- ENGL 1315 - Writing About Literature I
- TECM 1700 - Introduction to Professional, Science, and Technical Writing

Group 2

- ENGL 1320 - First-Year Writing II
- ENGL 1321 - Honors First-Year Writing II *
- ENGL 1325 - Writing About Literature II
- TECM 2700 - Technical Writing

Note: TECM 2700 may be substituted for ENGL 1320 upon the approval of your academic school or college. Contact your academic advisor for assistance.

Mathematics, 3 hours

The Mathematics area focuses on quantitative literacy in logic, patterns and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

Students must choose one course from the following list.

- DSCI 2710 - Data Analysis with Spreadsheets
- MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields
- MATH 1190 - Business Calculus
- MATH 1580 - Survey of Mathematics with Applications
- MATH 1650 - Pre-Calculus
- MATH 1680 - Elementary Probability and Statistics
- MATH 1710 - Calculus I
- MATH 1810 - Calculus for Science and Engineering I

Note: MATH 1190, MATH 1650 and MATH 1710 have prerequisite courses that must be successfully completed before students may register for them. Contact your academic advisor for assistance.

Life and Physical Sciences, 6 hours

The Life and Physical Sciences area focuses on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Students must choose two courses from the following list:

- ANTH 2700 - Human Variation: Biological Anthropology, Evolution, and Forensics
- ARCH 2800 - Archaeological Science
- BIOL 1082 - Biology for Educators
- BIOL 1112 - Contemporary Biology
- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I
- BIOL 1711 - Honors Biology for Science Majors I *
- BIOL 1720 - Biology for Science Majors II
- BIOL 1722 - Honors Biology for Science Majors II *
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2700 - Human Evolution and Physical Anthropology
- CHEM 1360 - Context of Chemistry
- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1412 - General Chemistry I for the Honors College *
- CHEM 1413 - Honors General Chemistry I *
- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1422 - General Chemistry II for the Honors College *
- CHEM 1423 - Honors General Chemistry II *
- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology
- LING 3050 - Communication Across Species
- MTSE 2000 - Stuff Matters: Materials and Civilization
- NUTR 2460 - Introduction to Nutrition Science
- NUTR 3460 - Healthy Sustainable Meals
- PHYS 1052 - The Solar System
- PHYS 1062 - Stars and the Universe
- PHYS 1270 - Science and Technology of Musical Sound
- PHYS 1315 - Introduction to the World of Physics
- PHYS 1410 - General Physics I
- PHYS 1420 - General Physics II
- PHYS 1510 - General Physics I with Calculus
- PHYS 1520 - General Physics II with Calculus
- PHYS 1710 - Mechanics
- PHYS 2220 - Electricity and Magnetism

Language, Philosophy and Culture, 3 hours

The Language, Philosophy and Culture area focuses on how ideas, values, beliefs and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.

Students must choose one course from the following list:

- AGER 2250 - Images of Aging in Film and Literature
- ANTH 3101 - Issues in Contemporary American Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3120 - Indigenous Cultures of the Southwest
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 3200 - Latin America
- ANTH 3210 - Meso America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ART 2350 - Art History Survey I
- ENGL 2321 - British Literature
- ENGL 2326 - American Literature
- ENGL 2331 - World Literature
- ENGL 2341 - Forms of Literature
- ENGL 2351 - Mexican American Literature
- ENGL 3450 - Short Story
- GEOG 1000 - National Parks: America's Best Idea
- HDFS 2313 - Courtship and Marriage
- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century
- KINE 2050 - Sociology of Sport
- LING 2050 - The Language of Now: Pop Culture, Technology and Society
- LING 3010 - African American English
- MUET 2000 - Global Pop: Music, Media, and Society
- MUET 3030 - Music Cultures of the World
- PHIL 1050 - Introduction to Philosophy
- PHIL 1400 - Ethics and Society
- PHIL 2050 - Logic and Critical Thinking
- PHIL 2070 - World Religions
- PHIL 2600 - Ethics in Science
- THEA 3040 - World Theatre After 1700

Creative Arts, 3 hours

The Creative Arts area focuses on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.

Students must choose one course from the following list:

- ANTH 2400 - AnthroPop: Symbolic Anthropology and the Artistry of Popular Culture
- ART 1300 - Art Appreciation for Non-Art Majors
- ART 1301 - Honors Art Appreciation *
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- COMM 2060 - Performance of Literature
- DANC 1200 - Appreciation of Dance as a Contemporary Art Form
- DANC 2800 - Survey of Dance
- MUCO 1200 - Analysis and Critical Listening in Commercial Music and Music Production
- MUCO 3500 - Cultures of Hip Hop
- MUET 3060 - African-American Music
- MUJS 3400 - Understanding and Appreciating Jazz in U.S. and World History and Culture
- MUMH 1610 - Music as Communication
- MUMH 2040 - Music Appreciation
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 2080 - Music and Sound in Video Games

- MUMH 3000 - Nineteenth-Century Music
- MUMH 3010 - Twentieth-Century Music
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics
- MUMH 3520 - Issues in Western Music History
- PHIL 1900 - Philosophy of Art
- THEA 1340 - Aesthetics of the Theatre Throughout the World
- THEA 2340 - Theatre Appreciation
- THEA 3030 - World Theatre to 1700

American History, 6 hours

The American History area focuses on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.

Students must choose two courses from the following list:

- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865
- HIST 2675 - Honors United States History to 1865 *
- HIST 2685 - Honors United States History Since 1865 *

Government/Political Science, 6 hours

The Government/Political Science area focuses on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.

Texas state law requires that the university not award a baccalaureate degree or a lesser degree or academic certificate unless the student has completed 6 hours of credit in American Government to include consideration of the constitutions of the United States and Texas. The university may determine that a student has met the requirement in whole or in part on the basis of credit transferred from another accredited college or upon successful completion of an advanced standing examination. The university may grant as much as 3 hours of credit toward satisfaction of this requirement for substantially equivalent work in an approved senior ROTC unit. The student may satisfy the entire 6-hour political science requirement by advanced standing examination. Transfer students who have completed both GOVT 2305 and 2306 or their equivalents have satisfied this requirement. Transfer students who have only completed one of these two courses, GOVT 2305 or 2306, should consult with their academic advisor to determine which course is required to complete this requirement.

Students must choose two courses from the following list:

- PSCI 2305 - US Political Behavior and Policy
- PSCI 2315 - Honors US Political Behavior and Policy *
- PSCI 2306 - US and Texas Constitutions and Institutions
- PSCI 2316 - Honors U.S. and Texas Constitutions and Institutions *

Social and Behavioral Sciences, 3 hours

The Social and Behavioral Sciences area focuses on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions and events, examining their impact on the individual, society and culture.

Students must choose one course from the following list:

- AGER 4560 - Minority Aging
- AGER 4800 - The Social Context of Aging: Global Perspectives
- ANTH 1010 - Introduction to Anthropology
- ANTH 2300 - Culture and Society
- BAAS 3000 - Pathways to Civic Engagement
- BEHV 2300 - How Behavior Works
- CJUS 2100 - Crime and Justice in the United States
- COMM 2020 - Interpersonal Communication
- EADP 1010 - Exploring Disasters
- EADP 4050 - Social Vulnerability in Disasters
- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- FIPL 2770 - Show Me the Money - Lessons in Money Education
- GEOG 1200 - Global Societies
- GEOG 1500 - Geospatial Technology and Urban Environments
- HDFS 1013 - Human Development
- HLTH 2200 - Family Life and Human Sexuality
- JOUR 1210 - Mass Communication and Society
- LING 3060 - Principles of Language Study
- MDSE 2750 - Consumers in a Global Market
- PADM 2100 - Cultural Competency in Urban Governance
- PSYC 1630 - General Psychology I
- RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations
- RHAB 3100 - Disability and Society
- SOCI 1510 - Introduction to Sociology
- SOWK 1450 - Introduction to Social Work

Component Area Option, 6 hours

The Component Area Option courses are designed to help students further develop the tools necessary for full engagement in the undergraduate experience.

Students should consult with their academic advisor to determine whether specific Core Option courses are necessary to make timely degree progression in their chosen field of study. To fulfill the University Core Curriculum requirements for this area, students may either

- Take 6 credit hours from Component Area Option A
  OR
- Take 3 credit hours from Component Area Option A AND 3 credit hours from Component Area Option B.

Component Area Option A

Students must choose courses from the following list:

- ANTH 1150 - World Cultures Through Film
- COMM 2040 - Public Speaking
- COMM 2140 - Advocating in Public
- COUN 2620 - Diversity and Cultural Awareness
- HDFS 3423 - Family, School and Community
- NUTR 1450 - Principles of Nutrition
- JOUR 2250 - Media Literacy
- MATH 1720 - Calculus II
- MDSE 3370 - Social Psychology of Dress and Appearance
- MKTG 3010 - Foundations of Selling and Communication
- MTSE 1100 - Discover How and Why Materials “Matter”
- MUJS 3070 - History of Jazz
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- PHIL 2500 - Environment and Society
- PHIL 3900 - Philosophy of Food
- PHIL 4150 - Feminism
- PHIL 4200 - Science, Technology and Society

- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOWK 4540 - Human Diversity for the Helping Professions
- TECM 1600 - AI in Professional Settings
- Or any course included in the other core areas listed above (Communication, Life and Physical Sciences, etc.)

Note: Students may not "double-dip" courses to complete the University Core Curriculum. If a student completes PADM 2100 for the Social and Behavioral Sciences area, PADM 2100 may not count toward Component Area Option A.

Component Area Option B

Students must choose courses from the following list:

- ADES 3700 - Design Thinking: From Ideas to Action
- COMM 1010 - Introduction to Communication
- COMM 1440 - Honors Classical Argument *
- CSCE 1010 - Discovering Computer Science
- HDFS 2033 - Parenting
- INST 2100 - Introduction to International Studies
- JOUR 2300 - Principles of News
- LING 2070 - Language and Discrimination
- MKTG 2650 - Culture and Consumption
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness
- RHAB 3000 - Active Listening in the Helping Professions
- TECM 1500 - New Media Experience
- UNIV 2100 - Explorations
- UNIV 2300 - UNT Braven Career and Leadership Accelerator
- WGST 2100 - Introduction to Women's and Gender Studies

Other Ways to Complete University Core Curriculum Requirements

Transfer of the Core Curriculum

A student who successfully completes the common core curriculum at a state-assisted institution of higher education in Texas may transfer as "core complete" to UNT. The student will receive academic credit for each of the courses transferred. See also the UNT transfer articulation web page on the Registrar's Office web site, where you can find information on the online transfer course equivalency tool Transferology.

Advanced Standing Examination (AP/IB/CLEP)

Certain core areas may be completed, fully or in part, by the successful completion of the appropriate advanced standing examination (AP/IB/CLEP). More information about advanced standing examinations accepted by UNT may be found on the Test, Prior Learning and Transfer Credit page under "Advanced Placement and Credit by Examination." Please speak to your advisor to determine how an advanced standing examination may be used in meeting your degree requirements.

Graduation

Degree Conferral (Graduation)

Degree conferral (typically referred to as graduation) and commencement are two separate milestones in students' college experience. Graduation is the successful completion of all degree requirements. Commencement is a ceremony where students are publicly recognized by the university.

Graduation is official and complete once the university officially records the degree on the student record (transcript).

Approval to participate in commencement does not mean that a student has graduated.

The degree is marked complete on the transcript when all degree requirements are met, including but not limited to:

- General degree requirements for the university
- Major requirements
- Non-coursework requirements
- Grades for current work
- All transfer work is posted

Students otherwise eligible for graduation who complete their final course or courses elsewhere will not graduate at the end of the term/semester or summer session/term in which the work is completed because of the time required for obtaining transcripts; such students will have their degrees conferred at the close of a subsequent UNT term/semester.

Graduation Check

Students are recommended to check in with their academic advisor to ensure they are on track to graduate at least two semesters before they plan to apply for graduation. Among the items to consider are:

- Remaining major course work
- Remaining university requirements
- All university requirements
- GPA requirements
- Advanced hour requirements

Apply for Graduation

Students apply for graduation through the myUNT student portal. Students must complete the application by the posted deadline. For additional information about applying for graduation and the deadlines, students may visit the Registrar's Office website on Applying for Degree Conferral (Graduation) & Commencement.

Requirements for Graduation

Students must meet certain requirements to have their graduation application accepted and approved.

- Have a minimum overall C average. See "Grade Point Average" on the Academic Policies and Procedures page for grade point calculation details. Must be in good academic standing.
- Remove any incomplete or "I" grades in required courses
- Meet all university requirements and degree requirements. See "Graduation Under a Particular Catalog"

Graduation Under a Particular Catalog

Students complete graduation requirements based on the catalog year listed on their degree audit. Students may choose to complete the degree requirements from either:

- The graduation requirements listed in the catalog in effect at the time of admission to UNT, or
- The graduation requirements listed in a catalog published after the student was admitted, but before the student's graduation

Students who change to a later catalog must officially change their catalog year with their advisor.

Students must meet all requirements of the chosen catalog within eight years of that catalog's publication. This catalog will expire at the close of the 2034 summer semester/term.

Transfer Students

Students transferring directly from a Texas public community college to UNT may choose to complete the degree requirements from either:

- The graduation requirements listed in the UNT catalog in effect at the time of their admission to that community college, or
- The graduation requirements listed in any UNT catalog published after admission to the community college, but before the student's graduation

Students transferring from 4-year universities or out-of-state community colleges may choose to complete the degree requirements from either:

- The graduation requirements listed in the catalog in effect at the time of their admission to UNT, or
- The graduation requirements listed in any catalog published after admission to UNT, but before the student's graduation

Students who change to a later catalog must officially change their catalog year with their advisor. The catalog may be no more than eight years old.

Degree Requirements Adjustments

Students' degree requirements may need adjustment because of course changes (additions, deletions or changes to course prerequisites) or because of changes required by external accrediting or certification agencies.

Whenever possible, new requirements go into effect with an incoming class or upon the expiration of the appropriate time limit.

Students should speak with an advisor to determine how course changes may affect their degree plan.

Withdrawing Application for Graduation

Students who apply for graduation in error, or who would like to change the term/semester for graduation, may request their application be withdrawn. Students who withdraw their application for graduation must reapply for graduation through the myUNT student portal. See the Registrar's Office website on Apply for Degree Conferral (Graduation) & Commencement for more information.

$1,000 Tuition Rebate

Texas residents may be eligible for a $1,000 tuition rebate, if they meet certain requirements. See the Registrar's Office website $1,000 Tuition Rebate page for more information.

Graduation With Honors

Undergraduate students whose overall grade point average (OGPA), based on both grades earned in University of North Texas courses and transferred courses, is at least 3.500 or better can graduate with one of the following distinctions:

- Cum laude - 3.500 to 3.699
- Magna cum laude - 3.700 to 3.899
- Summa cum laude - 3.900 to 4.000

See the Graduation with Latin Honors page on the Registrar's Office website for more information on graduating with honors.

Diplomas

Diplomas are ordered on the student's behalf and sent to their mailing address. Students can update their mailing address by calling the Registrar's Office at 940-565-2111 or through the myUNT student portal.

Name on Diploma

Students can choose to have either their legal or chosen name displayed on their diploma.

For more information on changing a legal or chosen name, or to modify the diploma name, see the Update Your Personal Information page on the Registrar's Office website.

Ordering Duplicate Diplomas and Certificates

Students can order duplicate diplomas and academic certificates. See the Diplomas and Certificates page on the Registrar's Office website for more information.

Posthumous Degrees

A deceased student may be eligible for award of a posthumous baccalaureate or graduate degree under certain conditions as confirmed by the Provost and Vice President for Academic Affairs. See the full procedure process link on the Dean of Students website for more information.

Commencement

Commencement Events

Commencement events are ceremonies hosted by the university where students are publicly and formally recognized. Participation in commencement does not mean that the degree is complete. Students do not have to be present at commencement to receive their degree.

See the UNT Commencement website for more information.

Commencement Rules and Regulations

Students and their guests must follow certain rules and regulations to attend commencement events at UNT. Review the Commencement Check List and Guest Information pages on the UNT Commencement website for more information.

After Graduation

Directory Information

Students who have requested the Registrar's Office withhold directory information concerning their academic records must release the hold for UNT to verify their degree to potential employers. For more information, see How to Request the Release of Directory Information on the Registrar's Office website.

Ordering Transcripts

Students can request official transcripts in person at the UNT One Stop on the second floor of the Eagle Student Services Center (ESSC), or online through the third-party provider Parchment. For more information, see the Registrar's Office website for Ordering Official Transcripts.

UNT Alumni Association

The UNT Alumni Association provides opportunities for graduates to stay connected to UNT through events, networking, volunteer engagement and the North Texas Network (NTN), UNT's online platform for professional connections and mentoring. See the UNT Alumni Association website for additional information, programs and engagement opportunities.

Career Center

Students have continued access to a range of support services from the UNT Career Center and Career Coaches after graduation. See the Alumni Page of the Career Center website for more information.

Registration and Schedule Adjustment

The Registration and Schedule Adjustments page is a student's guide to understanding course and scheduling information, including how to plan their course work, register, or make adjustments to their schedule. Students should consider their course location, limited class sizes, how often courses are offered, and how to intermingle courses, work and other activities.

Course Information

Course information includes descriptions of the UNT numbering system, types of courses offered, and the terms commonly used in course listings. It also includes information about locations and additional ways students may attend courses.

Course Numbering System

- 100-999 - Developmental courses
- 1000-1999 - Freshman courses
- 2000-2999 - Sophomore courses
- 3000-3999 - Junior courses
- 4000-4999 - Senior courses
- 5000 and above - Graduate courses

Developmental Courses (100-999)

Undergraduate courses designed to help students build foundational skills before they take 1000-level or higher courses in the same subject. The hours are included in the student's enrolled hours but are not counted toward:

- The GPA
- Academic standing or
- To meet a requirement of a degree

Advanced Courses (3000-4999)

Advanced courses may also be called upper-level or upper-division courses.

Undergraduate courses that build on foundational knowledge from lower-division courses. Open to students who have:

- 12 semester hours of credit in a given subject
- Completed the course's prerequisites, or
- The consent of the department

Experimental Courses (1980, 2980, 4980)

New undergraduate courses offered on a trial basis for 1–4 hours credit each. Registration is permitted only upon approval of the department chair.

Honors College Research and Thesis Courses

Honors College Mentored Research Experience (2996, 3996) and Honors College Capstone Thesis (4951) undergraduate honors courses taught under the major prefix. Student must be a member of the Honors College to register.

Special Problems Courses

Used upon approval of the department chair or dean for individual instruction in any department to cover course content in special circumstances.

- 2900, 2910, 4900 and 4910 – Undergraduate
- 5900, 5910, 5920 and 5930 – Master's (available for Doctoral students)
- 6900 and 6910 – Doctoral

Zero-Credit Offering Courses (ZCO)

Courses with no semester credit hours attached (course number ends with a Z). These courses develop students' academic, professional, and research skills without adding credit hours or significant costs to the degree. Students must be registered for credit-bearing courses in the same term to enroll in a ZCO.

Course Options

Courses may be taught in either a lecture or non-lecture format. The list below is not comprehensive.

Internship

Students earn academic credit for a mentored, hands-on, professional experience related to a student's field of study. Some degree programs require students to complete an internship as part of their course work.

Seminar (Lecture)

Courses taught in a structured manner, typically discussion based on a given topic.

Studio

Courses taught in a hands-on manner, typically in a non-classroom setting.

Study Abroad

Courses taken in a foreign country that offer students an immersive experience.

Topics

Courses that offer varying topics each semester. Some topics courses can repeated for credit. Speak with an advisor to determine if a topics course can be used to meet a degree requirement.

Course Description Components

Semester Credit Hours

A semester hour is the unit of credit at UNT. One (1) semester hour allows for 1 lecture hour a week for 15 weeks or the equivalent. Each course states the number of semester credit hours a student earns for completing the course. Some courses include time spent in recitation or laboratory. See "contact hours" below.

Variable Credit Hours

Some courses include a range of hours that may be earned for a course, i.e., "1-3 hours" or "3, 6 or 9 hours." Students enroll for the appropriate number of hours during the registration process. Students should speak with their advisor to ensure they register for the correct number of hours.

Contact Hours

Some courses include weekly scheduled time spent in laboratory or recitation, in addition to the scheduled lecture hours. These hours are presented in parentheses in the course description, always in the order (lecture; lab; recitation). For example,

- (3;1;1) = 3 lecture hours, 1 laboratory hour, 1 recitation hour
- (3;0;2) = 3 lecture hours, no laboratory hour, 2 recitation hours

When recitation and laboratory hours are required, they are scheduled and registered for separately.

Laboratory

A laboratory is a section required by some classes that allows students to apply the knowledge learned in the lecture portion of the class.

Recitation

A recitation is a section required by some classes to cover coursework and answer questions.

Corequisite

A corequisite is a course that must be completed before or at the same time as another course.

Prerequisite

A prerequisite is required academic preparation a student needs to be successful in a course. These can include:

- Test credit
- Completion of a course
- A minimum grade in a prior course.

This preparation must be completed before the course may be taken.

Recommended

A recommended preparation that would help a student be more successful in the course, but is not required for registration.

Restrictions

A restriction limits course enrollment to students who are part of a specific group or who have met a certain non-course requirement. These restrictions may include:

- Admission to a certain college or program
- Junior, senior, etc. standing
- Certain GPA
- Consent of the department

Other Course Terminology

Cross-List

Cross-list indicates that two or more UNT courses are equivalent to each other and either course may be taken to meet a course requirement. If a course is cross-listed with another course, its course description will list "same as" and identify the equivalent course. An undergraduate course that is cross-listed with a graduate course will include the statement "meets with," as the courses may be taught together but the graduate student completes additional requirements.

Duplication

A course duplication occurs when a student takes a course a second or subsequent time in an attempt to earn a higher grade in the course. For more information, please see "Retaking a Course and Grade Replacement" in Academic Policies and Procedures .

Repeatability

Some courses may be repeated with each offering used toward the degree and counted in the GPA. Repeatable courses include the note "may be repeated for credit" and may include a maximum number of hours in the description. The department offering the course determines how many times a course may be repeated. A repeatable course may be duplicated at the request of the student.

Section

Section is the term used to identify each offering of a course in a given semester. See "How to Register" on the Registrar's website for more information.

Syllabus

A syllabus outlines the information covered in the course, course policies, the professor's office hours, required materials, etc.

Additional Course Locations

Students may take courses on the main campus, at Discovery Park (a 3-mile shuttle ride from the main campus), at Frisco, at other locations in the Dallas-Fort Worth region, or online.

Online and Hybrid Courses

In addition to face-to-face courses, UNT offers courses in both online and hybrid formats. Online courses may be either synchronous, with a set meeting pattern during the week, or asynchronous, with no set meeting pattern. Hybrid courses are delivered both in-person and online. See the "Instruction and Section Information" page on the Registrar's site for more information.

Universities Center at Dallas

UNT and UNT-Dallas cooperate to offer upper-division undergraduate courses and graduate courses at the Universities Center at Dallas (UCD), a Multi-Institutional Teaching Center (MITC) located at 1901 Main Street in downtown Dallas.

UNT at Frisco

UNT at Frisco is a branch campus of UNT that hosts both undergraduate and graduate courses. UNT at Frisco includes two locations: Frisco Landing and Inspire Park. See the UNT at Frisco website for more information about course offerings.

Collin Higher Education Center (CHEC)

UNT, Collin College and other area universities offer undergraduate and graduate courses at the Collin Higher Education Center, located at 3452 Spur 399 in McKinney, Texas.

Other Learning Opportunities

Auditing

Admitted students may elect to audit a course for no academic credit.

- Students should consult with their academic advisor before electing to audit a course.
- Election must occur by the census date for the term/session. Once the election is made, a change cannot be made after the census date.
- If the course enrollment reaches maximum capacity, students will not be allowed to audit the course.
- Auditors are expected to abide by all class policies and procedures, including regular and timely attendance.
- Auditors will be included on the class roll; however, the instructor will not require or accept any papers, tests or examinations.
- A grade of AU is assigned to students and will appear on their academic transcript.
- Auditing a credit-bearing course does not change the status of the course from being an academic credit course to a noncredit credit course.
- Auditors cannot claim credit based on attendance or petition to change the course to academic credit after census for that term.
- Auditors pay a fee per semester, regardless of the number of courses audited. Tuition and fee information is available on the Student Accounting web site.
- A person 65 years of age or older may enroll as an auditor and observer without credit and without payment of a fee, if space is available and if approved by the department chair and the appropriate dean. Such enrollment entitles the person to library privileges, but not to instruction in applied music or physical education, the use of laboratory equipment and supplies, or admission to university-sponsored fine arts events. (Texas Education Code, Subchapter 54, Section 54.210)

Concurrent Coursework

Concurrent coursework is when a student is officially registered and enrolled in courses at two separate institutions at the same time.

Collin College Concurrent Enrollment

Students may enroll in courses at both Collin College's Frisco campus and the UNT Frisco campus concurrently, while following a designated degree path at UNT, through a partnership between UNT at Frisco and Collin College.

Concurrent Registration at Other Institutions

Students may also register concurrently at institutions not partnered with UNT.

Students who would like to take coursework at another institution should first consult with their advisor.

- Students who earn transfer hours from other institutions while attending UNT must submit an official transcript to the Registrar's Office at the end of each term.
- If the official transcripts are not received, then an academic hold may be placed on the student's account, preventing future registration and receipt of an official UNT transcript.
- Special rules prevent students from being charged minimum tuition at multiple state-funded colleges in the same semester. Students are cautioned to check these rules before enrollment in any state college.

See "Correspondence Course Credit" on the Test, Prior Learning and Transfer Credit page for more information.

Class Attendance, Policies and Procedures

In this section, students can find information on expectations for class attendance, emergency closures, policies for absence, disability accommodations and final exams.

Class Attendance

Attending classes regularly and on time is expected. Faculty members, departments and other academic units are authorized to establish class attendance and participation as essential to the course and set consequences for non-attendance. Policies and procedures related to class attendance are included in the course syllabus.

Authorized Absences

The university authorizes absences in regard to:

- Religious holy days, including travel for that purpose
- Participation in an official university function
- Required military service, including travel for that purpose
- Pregnancy and parenting under Title IX
- When the university is officially closed.

See UNT Policy 06.039 for the rules and regulations in place for these absences.

Emergency Closures

Weather conditions may temporarily disrupt university operations. University administration will determine if it is necessary to delay opening time, dismiss early, or close for the entire day. Courses taught via Canvas are typically unaffected by weather-related closings unless the instructor specifies otherwise; students should continue coursework as regularly scheduled.

Official closing announcements are posted on the UNT website and released to Dallas–Fort Worth news media. Registered students, faculty and staff will receive notifications via the Eagle Alert system. To ensure you receive these updates, please verify your contact information at MyUNT.

Additional updates are available via Facebook (@northtexas), X (@UNTEagleAlert), and local media outlets. For detailed safety guidelines and resources, visit unt.edu/weather.

Pre-Finals Days

The two calendar days preceding Reading Day of each fall and spring semester. No new material is presented in class and no extracurricular or organizational activities may be scheduled. See policy 06.031 for more information and exceptions.

Reading Day

The Friday of the week immediately preceding final exams each fall and spring semester. No classes are held on this day and no new material may be presented. Extracurricular and organizational activities may not be scheduled. See policy 06.031 for more information and exceptions.

Final Examinations

Faculty members are required to administer final examinations at the designated times during the exam week of each long semester and during the specified day of each wintermester (Spring 3W1) and summer term if a final examination for the course is required. Students who have more than two final exams on one day may request to reschedule one of the exams to a different day. See policy 06.031 for more information and exceptions. A course's final exam may cover all material covered in the course or a specific subsection of material. Students should review the course syllabus for more information.

Disability Accommodation

In accordance with university policies and state and federal regulations (especially Section 504 of the Rehabilitation Act and the Americans with Disabilities Act as Amended), the University of North Texas makes reasonable academic adjustments for qualified students with disabilities who require accommodation to fulfill the requirements for a degree.

Students who encounter access barriers in a campus instructional facility or who wish to request accommodation in a course because of a disability (i.e., sign language interpreters, material in alternate format, accommodated testing) should see the Office of Disability Access website for policy and procedure information.

Registration and Schedule Adjustment

During registration, classes fill on a first-come, first-served basis. This section contains information on when students' assigned registration window opens, how many hours they may register for, how to register and how to change their schedule.

Pre-Registration

Before registering for courses each term/semester, students determine how many hours of course work they may register for, what paperwork needs to be completed, and talk with an advisor to determine which courses best fit their needs for the semester.

Terms/Semesters/Sessions

The academic year includes three terms/semesters, fall, spring and summer, which are broken up into sessions.

Fall and spring semesters include:

- A full-term session
- Eight week sessions (8W1 and 8W2)
- Spring also includes a three-week "wintermester" session (3W1)

Summer term includes:

- Three-week session (3W1)
- Five week sessions (5W1 and 5W2)
- Eight-week session (8W1)
- Ten-week session (10W)

Student Load

Undergraduate

Full-time undergraduate students normally take 15 semester hours each fall and spring term/semester (30 hours total for the 9-month academic year) and 12 hours for the summer term/semester. The number of weeks in a term and the student's GPA are two factors used to determine the number of hours the student is allowed to take in a given term/semester/session.

- Students with a GPA of less than 3.000 may take a maximum of 19 semester hours during the fall and spring semesters. These hours may be taken across multiple sessions in the semester.
- Students with a GPA of at least 3.000 may take a maximum of 21 hours during the fall and spring semesters if they meet certain conditions.
    1. At least a 3.000 GPA on a minimum 15-hour residence load for the term/semester just completed
    2. At least a 3.000 GPA on a minimum 12-hour residence load for the summer term/semester just completed
    3. At least a 3.000 GPA on all work completed at UNT and a minimum of 24 hours of credit in residence
- Students with a GPA of more than 3.000 may take a maximum of 18 semester hours during the summer. These hours may be taken across multiple sessions.
    1. Three-week session (3W1): 4 hours maximum
    2. Five-week one session (5W1): 8 hours maximum
    3. Five-week two session (5W2): 7 hours maximum
    4. Eight-week sessions (fall, spring and summer 8W1 and fall and spring 8W2) : 9 hours maximum, per session
    5. Ten-week session (10W): 15 hours maximum

Note: For information about the required semester hours for enrollment verification purposes, refer to the "Enrollment Certification" section below.

Graduate

Graduate students may schedule a maximum of 16 hours during any fall or spring term/semester.

The number of weeks in a term/semester/session and the student's GPA are two factors used to determine the number of hours the student is allowed to take in a given term/semester/session.

- Three-week spring or summer session (spring and summer 3W1), 4 hours maximum
- Five-week sessions (5W1 and 5W2), 7 hours maximum
- Eight-week summer session (summer 8W1), 9 hours maximum
- Ten-week session (10W), 9 hours maximum
- At no time during concurrently running summer sessions can graduate students' enrollment exceed 10 hours
- For purposes of fulfilling the graduate residence requirements, a load of 9 semester hours is considered a full load in summer
- Full-time graduate students with a GPA of at least 3.000 may take a maximum of 18 hours during the summer. These hours may be taken across multiple sessions, but concurrent sessions may not exceed 10 hours

Note: Graduate students enrolled only in undergraduate courses for undergraduate credit may request special consideration of the graduate dean.

Texas Success Initiative

All Texas public institutions require undergraduate students to demonstrate readiness for college-level reading, writing and mathematics by earning minimum scores on TSI assessments. All incoming students must prove TSI exemption or submit TSI Assessment scores before they are allowed to register at orientation:

- Students may view the state-mandated exemption criteria to determine if they need to take the TSI Assessment
- Students can check their TSI status in their MyUNT Account under the UNT Advising and Orientation tile
- Visit the Advising Services Office for more information on the TSI Assessment
- Students who do not meet TSI standards are required to enroll in appropriate developmental courses designed to improve their academic skills and prepare them for college-level courses
- Students must satisfy all TSI requirements before receiving a baccalaureate degree

Orientation

All students new to UNT are required to attend orientation before they may register for classes. See the Orientation website for more information.

Bacterial Meningitis Vaccination Requirement

Students under the age of 22 who are new to UNT (new, transfer, or Intensive English Language Institute) or who are returning after a break in enrollment for a fall or spring semester are required by Texas state law to show evidence of a bacterial meningitis vaccination (meningococcal meningitis vaccine) or booster under certain conditions:

- Students registered for an in-person or partially in-person course
- Students living in on-campus housing

See the Meningitis Vaccine Requirement page on the Registrar's website for more information.

Registration

All registration and student-requested schedule changes are conducted via web registration on the my.UNT.edu website. Registration start dates are published on the Registrar's web site (https://registrar.unt.edu/when-can-i-register.html) and are based on general categories. Students should confirm their specific start date on their myUNT portal as it may differ based on legislative mandates or institutional requirements.

Types of Students

Students who are new to the university or have attended UNT in the past fall into one of several groups, which determine if they are able to register for courses. Active students are those who have been admitted to, but not yet attended, UNT and students who have attended UNT in a recent semester. The groups below determine if students may register for courses without reapplying to UNT.

Newly Admitted Students

Students who have been admitted, but not yet attended classes at UNT. These students must attend orientation before registering for courses.

Continuing Students

Students who have been officially enrolled at UNT at least once during the 12 consecutive months prior to the term/semester of planned enrollment and/or have not received a degree during the same period. Those who receive a degree and reapply to the university are considered new graduate students.

Inactive Students

Inactive undergraduate students are students who have not been officially enrolled at UNT in the last 12 consecutive months and who have not received a degree during the same period. See the Admission page for information about reapplying to continue taking courses at UNT.

Former Students

Graduated students who have not been enrolled at least once during the 12 consecutive months prior to planned enrollment and/or those who have received a degree. See the Admission page for information about reapplying to continue taking courses at UNT.

Non-Degree Seeking Students

An undergraduate student who wishes to take several courses at the undergraduate level without seeking a degree at UNT. Non-degree students are eligible to take up to 15 semester credit hours at which time students must apply to be degree-seeking.

Priority Registration

Class registration start dates are determined by the student's current classification, i.e., senior, junior, etc.. Classification is based on your cumulative earned credit hours, which includes your UNT credit, transfer credit and test credit. See "Classification of Students" on the Academic Policies and Procedures page.

Late Registration

Students who did not enroll during the regular registration periods must pay an additional fee to enroll late. See the Academic Calendars on the Registrar's web site for additional information, including the dates of late registration.

Schedule Changes (Add, Drop and Withdrawal)

Students may adjust their schedule by adding and/or dropping classes or by withdrawing from the university:

- Specific procedures and deadlines must be followed in making these changes. For information concerning adding or dropping courses, consult the online Schedule of Classes or my.UNT.edu
- Dropping all courses during a term/semester constitutes withdrawing from the university for that term/semester
- Students must notify the Dean of Students Office of their intent to withdraw from a term/semester

Dropping Courses

Students who wish to drop a course may do so at my.UNT.edu.

A course dropped before the 12th class day (census) of fall or spring terms/semesters or before the equivalent dates (census) for 3 week, 8 week or summer sessions will not receive a grade.

A course dropped after the census date but before the semester's 10th week of classes for fall or spring, or before the equivalent date for 3 week, 8 week or summer sessions, will receive a grade of W.

- Students applying for financial aid are required to notify Financial Aid and Scholarships before dropping any class to learn how it will affect current or future financial aid eligibility
- If a student fails to drop a course, even if the student does not attend the course, a grade of F will be recorded
- Faculty and staff will not drop a student from a course automatically for nonattendance; the student must initiate the process and complete the necessary steps to ensure the class is dropped
- Drop procedures must be completed by 5 p.m. on the deadline dates specified in the online Academic Calendar. After these dates, a student may not drop a course
- For drop procedures and instructions, please visit the Course Drop and Withdrawal Actions/Impacts Guide on the Registrar's Office web site

Limitation of Drops

Students enrolling in higher education for the first time during the fall 2007 academic term or any later term may drop a total of six courses. This total includes any course a transfer student has dropped at another Texas public institution of higher education. This does not apply to courses dropped prior to the census date or to courses dropped with a grade of WF, and does not apply if the student withdraws from the term or session.

Certain exceptions may be made to the six-drop limit. Reasonable cause for exception could include the following:

- Severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course
- The student's responsibility for the care of a sick, injured or needy person if the provision of that care affects the student's ability to satisfactorily complete the course
- The death of a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's death is considered to be a showing of good cause
- Active duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's active military service is considered to be a showing of good cause
- The change of the student's work schedule that is beyond the student's control and that affects the student's ability to satisfactorily complete the course

Requests for exception to the drop limitation must be made in writing to the student's academic dean and must occur during the semester that the dropped course was taken.

Withdrawal from UNT

A student may withdraw from UNT at any time prior to two weeks before the first day of final examinations for fall or spring terms/semesters or the equivalent dates for 3 week, 8 week or summer sessions by making a request to withdraw with the Dean of Student Office. The grade of W is recorded for each course in which a withdrawn student was enrolled.

Official dates and deadlines for withdrawing are specified in the online Academic Calendar.

To receive a refund for a parking permit, a student must return the permit to Parking Services located in the Highland Parking Garage.

Students Called to Active Duty

Under the Texas Education Code 54.006 (f), a student called to active duty may consider the following options:

- Withdrawal with a full refund of appropriate tuition/fees
- Incomplete grades with the one-year I (Incomplete) removal time limit starting with the end of active duty, or
- A final grade if the course is essentially over and the course material has been sufficiently mastered (determined by the instructor)

In order to be eligible for options under this law, a UNT student must produce a copy of his or her orders to the Dean of Students Office. Withdrawal may or may not require that the student talk with each instructor, depending on timing in the semester; however, the latter two options do require that the student talk with his or her instructors and come to a decision as to which solution is best for each class, given timing and circumstances.

Non-Academic Administrative Withdrawal

A non-academic administrative withdrawal may be requested by students experiencing a significant and unforeseeable medical or mental health condition, or extraordinary personal circumstances such as care of a seriously ill child or spouse or the death of a student's immediate family member compromising the student's ability to effectively participate in their educational courses and or program.

The expectation is for all students to make every effort to abide by all deadlines set each semester in the Academic Calendars. Students are responsible for withdrawing from courses they do not anticipate completing and should do so before requesting a non-academic administrative withdrawal. This process is not applicable once a degree has been conferred.

After the last day to withdraw from the session or term, a student who has an urgent, substantiated, and significant nonacademic extenuating circumstance which impacts the student's academic functioning may request an administrative withdrawal. In general, a request for non-academic withdrawal must apply to all courses in which a student is enrolled. Selective course withdrawal will be permitted only under exceptional circumstances.

Documentation on the extenuating circumstance must be provided. Failure to provide documentation to support the extenuating circumstances will result in automatic denial of the request.

A petition for a non-academic withdrawal does not exempt students from their financial obligations to the University. Non-academic withdrawals are intended to provide academic relief only. Each semester, students have the option to purchase tuition insurance, which can help mitigate financial loss resulting from a non-academic withdrawal during an academic session. If a student is seeking both academic and financial relief, the student non-academic withdrawal petition and supporting documentation will be forwarded to Student Accounting. However, students must contact Student Accounting directly to request a financial appeal and may need to provide other necessary information. For questions or clarification about a financial account, students should work directly with Student Accounting.

If the non-academic withdrawal is approved and the effective date of the unforeseen circumstance occurred before the census date of the session or term in which the class(es) were taught, the classes will no longer appear on the student's transcript. The effective date is determined by documentation submitted by the student, and university records.

If approved and the effective date of the unforeseen circumstance occurred after the census date of the session or term in which the class(es) were taught, the classes will remain on the transcript with a grade of WA, an administrative withdrawal.

Grade points for approved non-academic administrative withdrawn classes will not be included in the UNT grade point average. For undergraduate students, the withdrawals will not count in the six-withdrawal limit calculation.

Some examples of **unacceptable reasons** for requesting a non-academic withdrawal:

- Poor performance in class not related to the extenuating circumstance
- Attempting to improve your GPA
- Grade dispute
- Failure to verify class schedule through myUNT
- Failure to monitor waitlist position

- Change of major or program that results in a course no longer being a requirement
- Failure to attend/participate in class on a regular basis
- Failure to abide by drop and withdrawal deadlines

This policy does not supersede other specific UNT policies relative to student complaints or appeals including grade appeals, academic integrity investigations, discrimination, academic policies, or the Code of Student Conduct. These processes must be completed before a petition can be considered for review.

Non-Academic Withdrawal Process

Step 1: Speak with your academic advisor and/or Dean of Students office

Academic advisors and staff in the Dean of Students office are extremely helpful resources in determining if a non-academic withdrawal is the right process for you or what other options may be available.

Step 2: Write a personal statement

The non-academic withdrawal form requires students to include a personal statement. A well-written personal statement should:

- include a rationale for why you are requesting a retroactive change to your record,
- be highly detailed,
- be chronological, and
- be well organized. Be sure to *include dates of specific events.*

Step 3: Gather supporting documentation

Applications without supporting documentation will not be approved.

Supporting documentation should:

- be relevant to the circumstances outlined in the personal statement.
- come from resources that assisted during the circumstance such as:
    - health care providers, campus resources that were utilized
    - or other forms of documentation that can help corroborate any claims made.
- Your case is based on the information you provide to the committee. Be thorough. It is important that documentation includes dates.

Step 4: Submit the online form with all supporting documentation

After speaking with an academic advisor in the student's primary college or a staff member in the Dean of Students office and verification of eligibility to petition is given, students can submit the online petition form. The student must submit the online form and attach a personal statement and all related supporting documentation. The form will be available in the student's myUNT portal the following day.

Completed petitions are reviewed twice a month. Students will be notified of the final decision through their UNT email.

Ongoing Support and Re-Enrollment

The Dean of Students Office can provide consultation services to students experiencing a significant and unforeseeable medical or mental health condition, or extraordinary personal circumstances.

Repeated Non-Academic Withdrawal

Because the grounds for an approved non-academic withdrawal are severe and outside of the student's control, the University is sensitive to students' unique needs. As timely graduation is beneficial, any student's record may be referred to the Undergraduate Associate Dean of that student's college for further review. The Associate Dean may contact the student should there be suggestions for improving the student's academic progress and timely graduation as well as to advise the student of the requirements to maintain adequate academic progress. In some circumstances, consultation with the Dean of Students' Office may be required to return to the university.

Enrollment Certification

Enrollment certification (also called enrollment verification) for loan deferments is completed in the Registrar's Office and is based upon a student's having registered and paid tuition and fees according to the following criteria. See "Special Conditions for Financial Aid Applicants" in the Financial Information section of this catalog for loan deferment requirements.

Extension courses are considered nontraditional credit and are excluded for certification purposes.

International students may also request International Student and Scholar Services issue letters of enrollment for the use of foreign governments, embassies, scholarship agencies and banks.

Undergraduate

- Full Time: fall, spring or summer term/semester, 12 or more hours
- Three-Quarter Time: fall, spring or summer term/semester, 9 to 11 hours
- Half Time: fall, spring or summer term/semester, 6 to 8 hours

Graduate

- Full Time: fall, spring or summer term/semester, 9 or more hours.
- Doctoral and master's students enrolled in 3 or more hours of dissertation or thesis (courses numbered 5950/6950/6954) are considered full time.
- Students who receive Veteran's benefits should work with the Veteran Benefits office (940-369-8021) to ensure benefits are applied correctly.
- Three-Quarter Time: fall, spring or summer term/semester, 6 to 8 hours
- Half Time: fall, spring or summer term/semester, 5 hours

Verification of Enrollment/Enrollment Certificate

Current and former UNT students may request their own enrollment verification/certification through a direct link in myUNT. Enrollment verification certificates printed via the National Student Clearinghouse (NSC) should be accepted as official and can be used for insurance companies, scholarships, military IDs, employment and all other services that require proof of enrollment at the University of North Texas. For more information, please see the Enrollment Verification/Certification page of the Registrar's web site.

Third parties, such as health care companies, prospective employers, or insurance agencies seeking verification of enrollment, may contact the NSC online by going to https://secure.studentclearinghouse.org/vs/Index.

Financial Information

The Financial Information page includes information related to tuition and fees, payment options, options for funding options, and the responsibilities of students attending UNT. Students should contact Student Accounting for questions about tuition, fees, refunds and waivers, and Financial Aid & Scholarships for questions about available financial aid options.

Student Accounting	Financial Aid & Scholarships
Eagle Student Services Center, Room 160 Mailing address: 1155 Union Circle #310620 Denton, TX 76203-5017 940-565-3225 Website: studentaccounting.unt.edu Payments: my.unt.edu	Eagle Student Services Center, 2nd Floor Mailing address: 1155 Union Circle #311370 Denton, TX 76203-5017 940-565-2302 Toll free: 877-881-1014 Web site: financialaid.unt.edu

Tuition, Fees and Policies

General Financial Policies

As a public institution within the State of Texas, UNT is subject to state laws and regulations regarding the assessment and collection of tuition and fees. Extension of credit is prohibited and all financial obligations to the university must be paid by the established due dates.

UNT will not withhold a transcript if a student has a past-due balance on their student account and has received a Title IV federal student financial aid disbursement during their career at UNT. Examples of Title IV aid may include federal grants (examples: Pell, SEOG, TEACH) and federal loans. UNT has implemented these actions to comply with regulations published by the U.S. Department of Education related to withholding official transcripts for students who have outstanding financial obligations to the university. Past-due balances will remain in effect until they are paid in full or otherwise resolved. For more information regarding resolution of past-due balances, visit studentaccounting.unt.edu.

Tuition and Fee Policies

Tuition covers undergraduate and graduate work. Tuition and the various fees provide limited health services and admission to university-sponsored fine arts and athletic events. Instructional fees, materials fees and private instruction fees are additional. Students must purchase their own textbooks and supplies.

Fees charged for late registration, graduation and regalia, late filing for graduation and miscellaneous items are noted at studentaccounting.unt.edu.

Tuition, fees, and room and board are subject to increase or decrease without notice by action of the Texas Legislature and/or the UNT Board of Regents. Students are responsible for any additional tuition and/or fee amounts resulting from post audits and corrections (i.e., registration assessing errors, changing from off-campus to on-campus classes, invalid employment waivers, etc.). For current information on tuition and fees, visit the Student Accounting website (studentaccounting.unt.edu).

Tuition

Tuition Plans

The two tuition plan options available for undergraduate students at UNT are the Save and Soar Tuition Plan and the Traditional Tuition Plan.

The Save and Soar plan is available for Texas residents and locks the student's tuition rate for four years.

The Traditional Tuition plan assesses tuition and mandatory fees at an hourly rate up to 11.5 hours. The tuition and mandatory fees for students enrolled full-time (12+ hours) are assessed at a flat rate. Non-residents are automatically charged traditional tuition.

Please visit the Tuition Plans page on the Student Accounting website for more information.

Tuition Rates

Tuition rates are subject to change.

Undergraduate students who attempt 30 or more semester credit hours beyond the minimum number of hours required for completion of their degree program will be charged additional tuition amounts. Students initially enrolled as undergraduates prior to 1999 Fall Semester are exempt. See the Excessive Hours page on the Registrar's Office website for specific information.

Undergraduate students who enroll in certain courses more than twice will be charged additional tuition amounts. For more information, please see the Repeating Courses page on the Registrar's Office website for more information.

Explanation of Fees

(Fees are subject to change)

In addition to tuition, the university assesses various fees, including:

- Mandatory fees
- Instructional fees
- Program-Specific fees

Fees may have set values or be assessed per hour. Visit the Student Accounting website for a complete listing of current fees.

Waivers, Exemptions and Payment Adjustments

Tuition and Fee Waivers/Exemptions

Exemptions and waivers are available to qualifying students who meet the specific state requirements for each individual waiver or exemption. Waiver/exemptions refunds must be requested during the term/semester application is made. These requests must be made

- Prior to the 12th class day in long terms/semesters
- The 4th class day in the summer sessions (except 3W1)
- The 2nd class day in 3W1

Requests for retroactive refunds are not honored. For more information, including a list of waivers/exemptions, please see the Waivers and Exemptions page on the Student Accounting website. Posted waivers/exemptions are subject to post audit and correction.

Tuition and Fee Adjustments

A student who drops a course or withdraws from the university within certain time periods may be entitled to a tuition adjustment. These adjustments are calculated according to the category (drop or withdrawal) and time schedule listed on the Tuition Adjustments page of the Student Accounting website. Tuition adjustment periods and rates are subject to change by the state legislature. Delinquent payment fees, late registration charges, publication fees and installment handling fees are non-refundable. Any financial obligation to UNT must be resolved before any adjustments will be made.

Class Drop Adjustments

Tuition adjustments are made for any course dropped through the census date for the term/semester/session. See the 2026-27 Academic Calendar for specific dates.

Students dropping all classes for the semester/term (withdrawal) should see the Tuition Adjustments page of the Student Accounting website for more information about withdrawal tuition adjustments.

Students applying for financial aid are required to notify Financial Aid & Scholarships before dropping any class to learn how it will affect current or future financial aid eligibility.

Payment

Students have two options for paying tuition and fees to UNT:

1. Full payment of tuition and fees upon registration or by the payment deadline for early registration, or

2. Enrollment in a payment plan. Students selecting the payment plan option are entering a contractual agreement that requires installment payments on scheduled dates.

Tuition Payment Plan Option

Payment plans are available in fall, spring and summer semesters. Students with a past-due balance on their account are not eligible for a payment plan until the past-due balance is paid. Please see the Payment Plan page of the Student Accounting website for more information.

A Payment Plan enrollment fee is charged each semester the payment plan is utilized. Students who choose the payment plan option recognize they are in a contractual relationship and accept the terms of the payment plan contract.

Students who fail to successfully make installment payment of tuition and fees (including any incidental fees) on scheduled pay plan dates may be prohibited from registering for classes until full payment is made. Students who fails to make payment prior to the end of the term/semester may be denied credit for the work done that term/semester.

The Texas Legislature has the authority to modify or eliminate installment payment of tuition at each regular or called legislative session.

Paying Bills

State law does not permit the university to extend credit; bills must be paid when they are due.

Payment Methods

Credit card payments (MasterCard, Visa, American Express and Discover) and eCheck payments may be made through myUNT. Credit and debit card payments are assessed an additional service fee to cover the processing cost for the payment. Electronic checks are accepted with no additional fee.

Tuition and fee payments may also be made by personal check, money order, cashier's check, or cash at the Student Accounting Office in the Eagle Student Services Center.

Student Accounting requires the student identification number to be recorded on all check and money order payments. Checks must be made payable to the University of North Texas for the exact amount to be paid. Checks on which money must be advanced and postdated checks are not accepted.

Payments by Third Party

Checks issued by a third party in payment of a student's tuition, fees or other UNT charges should be made payable to UNT. The student's name and/or student ID number should be included on the payment.

Returned Checks

A returned check is defined as any check, similar sight order, or electronic bank draft returned to the university unpaid due to no fault of the bank or university.

Upon receipt of a returned check, notification is sent to the student or the individual in whose behalf the check was issued. The address on the check and/or the address in the official university records is used. The check is payable once the returned payment and returned payment fee is charged to the student account. Only cash, cashier's check or money order is accepted for payment of the returned check and service charge.

Refund issuing and online payment options are suspended while any returned checks and/or service charges are outstanding.

If the university receives three or more returned checks during an academic year, the check-issuing privileges of the individual will be revoked. If all attempts to collect a returned check have failed, a student may be dismissed from UNT and civil or criminal legal action may be taken in accordance with Texas state law (Sections 31.06 and 32.41 if the Texas Penal Code).

Financial Assistance

Financial Aid & Scholarships (FAS) at the University of North Texas offers a variety of options to assist students in financing their education. FAS may be reached at:

UNT One Stop
Eagle Student Services Center, 2nd Floor
1155 Union Circle #311370
Denton, TX 76203-5017
940-565-2302
web site: financialaid.unt.edu
ScrappySays.unt.edu

Types of Assistance

Scholarships

The University of North Texas offers competitive academic scholarships to entering freshmen, transfer and continuing students to assist with education-related expenses. Many students compete for scholarships, which are awarded on merit and on a first-come, first-served basis to students enrolling in the fall and spring term. It is recommended that students apply and complete admission to UNT as early as possible to compete for available scholarship opportunities.

The availability of all scholarship funding is affected by many factors such as the state's economy and the stock market's performance. The office of Financial Aid & Scholarships (FAS) coordinates all scholarship awards once they have been submitted for processing.

Incoming Student Scholarships

Most UNT scholarships for incoming students (entering freshmen and transfer students) are administered by Financial Aid & Scholarships (FAS), with students competing for a limited number of renewable scholarships. These scholarships are awarded based on a student's academic performance in high school or previous college/university using academic information from their Application for Admission.

Scholarships available for incoming students include:

- UNT Meritorious Scholarships for National Merit Finalists
- UNT Excellence Scholarship
- UNT Transfer Excellence Scholarships (including Phi Theta Kappa members)

In the case of the UNT Meritorious Scholarship for National Merit Finalists, National Merit Scholarship Corporation notification indicating UNT as the school of choice is required to be considered.

Please see the Scholarships page of the Financial Aid & Scholarships website for more information.

Continuing Student Scholarships

The majority of scholarships for continuing students are awarded in academic departments. Students should check with specific departments for additional details.

Entering and continuing students may complete a scholarship profile by accessing the Eagle Scholarship Portal (unt-scholarships.awardspring.com) to be considered for several scholarship opportunities. The portal becomes available annually in late fall for the following academic year. Students are encouraged to complete their scholarship profile as early as possible. Students must use their campus credentials assigned during the admission process (active EUID and password) to access the portal.

Students should visit the Scholarships page of the Financial Aid & Scholarships website for more information.

Grant Programs

A grant is a type of need-based aid that does not require repayment. Eligibility for grant aid is determined through the Free Application for Federal Student Aid (FAFSA) process. Students classified as Texas residents for tuition purposes who are not eligible for federal aid should visit financialaid.unt.edu to determine if they are eligible to submit a Texas Application for State Financial Aid (TASFA) for consideration of state financial aid.

The FAFSA (or TASFA, if applicable) is needed each year to be considered for federal, state, and institutional grants. Eligibility for a grant program does not guarantee an award. Applicants are considered based on the date of their application while considering the FAFSA-determined Student Aid Index (SAI). The earliest applicants with a completed award file have the best opportunity to be considered for available grant funding. **Students are encouraged to apply early, making sure to complete any requests for additional information as quickly as possible so awards can be finalized.**

For descriptions, amounts and eligibility requirements of federal, state and institutional grants offered at UNT, please visit the Grants page of the Financial Aid & Scholarships website.

Benefits for Veterans

Students who have served in the military who are currently serving, or dependents/spouses of veterans may be eligible to receive benefits from the federal Department of Veterans Affairs (VA). Veterans fill out and submit the VA online application at www.gibill.va.gov to see what benefits they are entitled to receive.

Current Educational Programs:

- Selected Reserves (Chapter 1606)
- Montgomery GI Bill® (Chapter 30)
- Post 9/11 GI Bill® (Chapter 33)
- Survivors and Dependents Assistance Program (Chapter 35)

VA Certifying Officials at UNT are located in Sage Hall, Suite 236 and can be reached at 940-369-8021. Veterans or dependents/spouses who have questions concerning the administration of benefits should contact the Regional VA Office at 1-888-442-4551.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at https://www.benefits.va.gov/gibill.

Hazlewood Act for Texas Veterans

Information on tuition exemptions and other veterans' educational benefits is available online at studentaccounting.unt.edu/va-education-benefits.html and studentaccounting.unt.edu/military-tuition-assistance.html.

Pending Payment Compliance

In accordance with Title 38 US Code 3679(e), University of North Texas adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post-9/11 G.I. Bill® (Ch. 33) or Veteran Readiness & Employment (Ch. 31) benefits, while payment to the institution is pending from VA. University of North Texas will not:

- Prevent the students' enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA Certificate of Eligibility (COE) by the first day of class;
- Request to be certified; and
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

Loan Programs

Federal Direct Loans

Federal Direct Loans are available to federal aid-eligible students who:

- Have completed the Free Application for Federal Student Aid (FAFSA) process
- Are enrolled at least half-time in an eligible degree or certificate program
- Have remaining loan eligibility
- Are not in default or owe a repayment to a federal aid program
- Are meeting Satisfactory Academic Progress (SAP) standards

The different types of Federal Direct Loans include:

- Federal Direct Subsidized Loans, which may be offered to undergraduate students with federal need
- Federal Direct Unsubsidized Loans, which may be offered to undergraduate and graduate students, regardless of federal need
- Federal Direct Parent PLUS Loan, which is a credit-based loan the parent or a legal guardian of dependent student may borrow for the student's educational expenses

Repayment begins six months after graduation or the last day of at least half-time enrollment.

Students should visit the Loans page of the Financial Aid & Scholarships website for more information.

Employment

Federal Work-Study Program

Eligibility for the Federal Work-Study Program is determined by established financial need, availability of monies to make awards, at least half-time enrollment and maintaining Satisfactory Academic Progress (SAP) standards as defined by Financial Aid & Scholarships. Students awarded Federal Work-Study are eligible to earn the financial aid amount through a work-study job. Students may begin the job search process by visiting the Career Center web site at careercenter.unt.edu. Most positions require 15–25 hours of work per week. Students apply directly to the department with the open position listed on the web site. The employing department will select students for interviews based on availability of funds, applicants' skills, educational background and interest. Eligibility must be confirmed each term/semester to continue in the Federal Work-Study Program.

Application and Eligibility

General Federal Aid Eligibility Requirements

Before any federal aid is offered, general eligibility and program requirements must be met. To be eligible for federal financial aid, students must:

- Establish eligibility by completing and submitting the Free Application for Federal Student Aid (FAFSA);
- Be a U.S. citizen or eligible noncitizen;
- Have a valid Social Security Number (unless you are from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau);
- Have a high school diploma, GED (general equivalency diploma), or the equivalent;
- Be accepted as a regular student for admission by the university and enrolled in an eligible degree or certification program;
- Not be in default on any federal student loan or owe a refund or repayment of educational funds received at any institution;
- Enroll in and maintain at least a half-time class load (with the exception of the Federal Pell Grant program);
- Be making Satisfactory Academic Progress (SAP);
- Use all funds received through financial aid for educational purposes.

Note: Non-degree students are not eligible for financial aid.

Aid Application Period

The Free Application for Federal Student Aid (FAFSA) is available each October 1 for the upcoming UNT academic year (fall, spring, summer). Students whose Financial aid application is completed

by the applicable priority date are ensured first consideration for awards. A complete financial aid application means the university has received the results of the student's FAFSA and any additional documents requested by Financial Aid & Scholarships (FAS). Students are encouraged to apply online at www.fafsa.gov at least two weeks before the priority dates to ensure students have had time to provide any additional information requested.

Priority Dates

Financial Aid priority dates are posted annually on the Financial Aid & Scholarships web sites.

A separate UNT summer aid interest form must be completed for summer financial aid. This form is available online (my.unt.edu) early in the spring term/semester for the following summer term/semester. The FAFSA for the year preceding the summer is also required (ex. 2026-27 FAFSA is required for Summer 2027 financial aid).

Special Conditions for Financial Aid Applicants

Enrollment

With the exception of the Federal Pell Grant program, students in an academic program under the undergraduate career (major or concentration) are required to enroll in at least 6 undergraduate hours per term/semester to be considered for financial aid programs.

Please review the Financial Aid Terms and Conditions on the Financial Aid & Scholarships web site for more information.

Courses must be required for a student's program of study in order to be considered for financial aid eligibility. The enrollment required hours for financial aid eligibility and loan deferment may be different. Students needing certification of enrollment for loan deferment purposes should visit the UNT Registrar's Office. Also see "Enrollment Certification" in the Registration and Schedule Adjustment section of this catalog.

Satisfactory Academic Progress (SAP)

Federal and state regulations require that each student maintain Satisfactory Academic Progress (SAP) to be eligible for financial aid programs. Minimum standards must be achieved by the end of any given enrollment period at UNT. Satisfactory Academic Progress (SAP) is defined using the following standards:

- Students must successfully complete a specific percentage of their cumulative attempted credit hours to meet the course completion rate requirement and maintain Satisfactory Academic Progress. Course completion rate is measured by dividing the cumulative number of hours successfully completed by the cumulative number of hours attempted. The minimum required Course Completion Rate for undergraduate students can be found on the Satisfactory Academic Progress page on the Financial Aid & Scholarships web site.
- Undergraduate students cannot exceed hours above 150 percent of their required degree plan. The maximum includes all hours attempted at UNT and all transfer hours for which credit was earned. Attempted hours include all graded hours, withdrawn courses, failed courses, repeated courses, and incomplete courses. It also includes college credit earned while in high school, the Armed Forces, or via test credit.
- Undergraduate students must earn a minimum 2.0 cumulative UNT grade point average to maintain Satisfactory Academic Progress.

For more information on Satisfactory Academic Progress (SAP), see the Financial Aid & Scholarships web site.

Repayment of Financial Aid Funds

Students who apply for financial aid agree that financial aid funds will be used for educational purposes only. If a student withdraws, officially or unofficially, before completing their program, a portion of the funds received may have to be returned. UNT calculates the amount of financial aid to be returned to the Title IV, HEA programs according to the policies outlined on the Consumer Information for Return of Title IV Funds page of the Financial Aid & Scholarships website.

Refunds and Rebates

Withdrawal from the University

Withdrawal tuition adjustments are determined by the date of withdrawal and the number of credit hours dropped. Withdrawal percentages are applied to the total amount of tuition and fees as prescribed by state law, not the amount paid. The withdrawal schedule and proration of tuition and fees are mandated by Texas Education Code 54.006. Prorated withdrawals from the term or session are calculated based on the first day of class up to the date of the withdrawal. Additional information may be found at studentaccounting.unt.edu or by contacting Student Accounting.

The withdrawal schedule and percentage of a pro-rata tuition adjustment pertain to total withdrawal from the term/semester and are mandated by federal law. Please contact Student Accounting regarding pro-rata tuition adjustment schedules and percentages.

Schedule of Withdrawal Tuition Adjustments

Please see studentaccounting.unt.edu for additional information about class drop and withdrawal tuition adjustments.

***Note: Some fees are non-refundable.**

Delinquent payment fees, late registration charges, publication fees and installment handling fee are non-refundable.

Refund of Property Deposit

Each student pays a property deposit during initial enrollment. If no money is owed to the University by graduation or withdrawal, this deposit is refundable to the student.

Tuition Rebates for Certain Undergraduates

Section 54.0065 of the Texas Education Code provides up to a $1,000 tuition rebate to students. To be eligible for a rebate under this program, a student must:

1. have enrolled for the first time in an institution of higher education in the Fall 1997 semester or later;
2. request a rebate for course work related to a first baccalaureate degree received from a general academic teaching institution;
3. have been a resident of Texas and have been entitled to pay resident tuition at all times while pursuing the degree;
4. if enrolled for the first time in Fall 2005 or later, graduate within four calendar years for a four-year degree or within five calendar years for a five-year degree if the degree is in a program determined by the Texas Higher Education Coordinating Board to require more than four years to complete; and
5. have attempted no more than 3 hours in excess of the minimum number of semester credit hours required to complete the degree under the catalog under which the student will graduate.

Hours attempted include transfer credits, course credit earned exclusively by examination (except that, for the purpose of this program, only the credit hours in excess of 9 semester credit hours earned exclusively by examination will be included as hours attempted), courses dropped after the official census date, for-credit developmental courses, optional internship and cooperative education courses and repeated courses. Courses earned prior to high school graduation as well as courses dropped for reasons that are determined by the institution to be totally beyond the control of the student shall not be counted.

For students concurrently earning a baccalaureate degree and a Texas teaching certificate, required teacher education courses shall not be counted to the extent that they are over and above the free electives allowed in the baccalaureate degree program.

Effective for students who enroll for the first time in Fall 2005 or later, an otherwise eligible student may be eligible for a tuition rebate without satisfying the requirements of item 4 above if the student is awarded a baccalaureate degree and the institution determines that the student's failure to comply was caused by a demonstrated hardship condition.

For additional information concerning the $1,000 tuition rebate, contact the Registrar's Office or your academic advisor.

Responsibilities

Student Financial Obligation Agreement

Each semester, prior to registering for classes, students are required to accept the Student Financial Obligation Agreement.

Responsibility of the Student

Once admitted to UNT, students are notified of their residency classification. Students are responsible for providing accurate residency information to the Office of the Registrar. Any questions concerning residence must be discussed with residency determination officials in the Office of Admissions and/or Registrar's Office prior to registration.

Any student incorrectly classified as a resident will be reclassified and required to pay all out-of-state tuition due. Attempts to evade nonresident fees may subject the student to the statute penalty and to possible disciplinary action.

Residency Regulations for Tuition Purposes

A student's state of residency is determined prior to first enrollment in accordance with rules and regulations established by the Texas Higher Education Coordinating Board. Detailed information on residency is available on the state website. New students may contact the Office of Admissions for detailed residency information. Current UNT students should contact the Registrar's Office. Students who are not legal residents of Texas must pay nonresident tuition, including the statutory tuition charges and standard university fees approved by the Board of Regents. Effective Fall 2015, undergraduate Oklahoma residents will pay a decreased rate for nonresident tuition.

Certain residency exceptions do not affect actual residency status but do allow for a nonresident tuition exemption. See the Waivers and Exemptions page of the Student Accounting website for more information.

Change of Status Nonresident to Resident

A student who is at any time classified as a nonresident retains nonresident status until the student applies for reclassification with the Office of the Registrar and the application is approved.

Change of Status Resident to Nonresident

Students who are classified as residents but become nonresidents by virtue of any address change must notify the Registrar of such change immediately. Students who believe they have been erroneously classified have the opportunity for appeal to the office that classified the residency: the Office of Admissions or the Office of the Registrar.

Correction of Errors

Students are responsible for any additional amounts due to UNT resulting from auditing and correction of records, including all registration assessment errors, changes from off-campus to on-campus classes, invalid employment waivers, etc.

Student Life

The Division of Student Affairs (DSA) creates a student experience that supports academic success, social engagement, and personal and professional growth. The student experience is enhanced through a wide array of intentional programs, services, and activities.

Departments and programs within the DSA include: Career Center, Center for Leadership Development, Center for Student Affairs at Discovery Park, Coliseum and Gateway Center, Counseling and Testing Services, Dean of Students Office, Dining Services, Eagle Engagement Center, Emerald Eagle Scholars, First Generation Success Center, Graduate Student Council, Green Jackets, Housing and Residence Life, Non-Traditional and Commuter Student Support, North Texas in D.C., Office of Disability Access, Orientation and Transition Programs, Recreational Sports, Recovery and Intervention Support and Education Program (RISE), Student Activities, Student Government Association, Student Health and Wellness Center, Student Legal Services, Student Veteran Services, Survivor Advocacy, TRIO Programs, University Union, and the Diamond Eagle Student Resource Center (to include the UNT Food Pantry presented by Kroger, the We Mean Green Fund, and the Suit Up Closet).

For more information, call 940-565-4909 or visit studentaffairs.unt.edu.

Departments

Dean of Students

The Dean of Students Office fosters the development of leadership, civility, accountability, and responsibility in the University of North Texas students; builds community through service and involvement; and serves as an advocate for all students. It strives to help all students achieve their academic and personal goals and enhance the UNT student experience.

The Dean of Students Office helps students resolve complex personal issues that may impact them in the classroom and can assist students with pregnancy and parenting accommodations, military activation of enrolled students, absences due to temporary disabilities and a variety of other issues that may arise that impact a student's ability to be successful in the classroom.

Academic Advocacy

Students are expected to attend classes regularly and to abide by the attendance policy established by the professor. However, the university is aware that there will be times when a student is unable to attend class due to emergency situations, health, or the death of a loved one. If there is an illness or extenuating circumstance that exceeds five consecutive days, faculty may request the student to provide documentation through the Dean of Students Office. The Office may be able to provide academic advocacy. Ultimately, attendance is a matter between the student and the professor.

CARE Team

The CARE Team is a collaborative interdisciplinary committee of university officials whose mission is to assist in protecting the health, safety, and welfare of the UNT community; support student, staff, and faculty success; and provide a comprehensive response to students, staff, and faculty whose behavior could be harmful to themselves or others. The mission of the CARE Team is to:

- Assist in protecting the health, safety, and welfare of the UNT Community
- Support student, staff and faculty success
- Provide a comprehensive response to students, staff, and faculty whose behavior could be harmful to themselves or others.

Questions or concerns for the CARE Team regarding an individual or an incident can be directed to careteam@unt.edu or deanofstudents@unt.edu. Referrals can be made through the CARE Team website.

Pregnant and Parenting Students

Title IX of the Education Amendments of 1972 ("Title IX"), 20 U.S.C. §1681 *et seq.*, is a Federal civil rights law that prohibits discrimination on the basis of sex—including pregnancy and parental status—in educational programs and activities. All public and private schools, school districts, colleges, and universities receiving any Federal funds ("schools") must comply with Title IX. Students can request pregnancy and/or parenting modifications at report.unt.edu. See the Dean of Students website, which includes accommodations information specific to pregnant and parenting students.

Student Conduct

Student conduct policies and procedures are enforced by the Dean of Students Office. DOS administers student disciplinary procedures in accordance with the Code of Student Conduct and maintains official disciplinary records. The office provides policy interpretation and rights adjustment, as well as handling complaints against students. Any member of the UNT Community can report alleged student misconduct at report.unt.edu. Emphasis is placed on educating students about their rights and responsibilities as members of the UNT community. The office provides students with the resources necessary to resolve their own personal disputes.

Student Death

The Dean of Students Office is the main point of contact in the case of a student death. The dean's staff will notify all appropriate people and departments on campus. Information needed is the student's full name and the contact name and number for the student's family. A staff member will be identified by the Dean of Students to make direct contact with the family and serve as the university liaison to assist the family as needed. The names of the student's friends should be forwarded to the Dean of Students for the purpose of outreach to those affected by the death of their friend and fellow student.

The Dean of Students Office organizes an annual Fallen Eagles memorial, an event where students who have passed away over the past year are recognized. All family members of those who will be honored are welcome and encouraged to attend the memorial. Please contact the Dean of Students at deanofstudents@unt.edu or by calling 940-565-2648.

Survivor Advocacy

The UNT Survivor Advocate's role is to connect students who have been impacted by violence to resources (counseling, health, safety, academics, legal, etc.), and act as their advocate. The Survivor Advocate can assist a student by filing protective orders, completing crime victim's compensation applications, contacting professors for absences, working with housing to facilitate a room change (if needed), and connecting students to the many other resources that are available, both on and off campus. Students may contact the Survivor Advocate at survivoradvocate@unt.edu, at 940-565-2648 or by visiting Union 409.

Temporary Disabilities

Temporary disabilities are not afforded the same consideration for accommodation and/or waivers that is provided under federal law for permanent disabilities. However, the Dean of Students Office can act as an advocate for students dealing with temporary disabilities. If a student has a temporary disability (i.e., broken leg, broken arm, etc.) and needs accommodation, the student may contact the Dean of Students Office and request a meeting to discuss their needs. Ultimately, it is up to each individual instructor to make any accommodations pertaining to temporary disabilities.

Dining Services

UNT Dining Services offers affordable food and drinks in dining halls, retail restaurants and catering. Money-saving meal plans are available to every student – even those living off-campus – and offer access to the university's five all-you-care-to-eat dining halls and/or 20+ retail restaurants, including Chick-fil-A, Qdoba, and the Campus Chat Food Court. Whether using a meal plan or paying with a credit card, we can't wait to serve you. Students should check the Dining Services website for more information about hours, locations, meal plans and residence hall meal plan requirements.

Dining also offers a variety of full- and part-time job opportunities with unique benefits and flexible shifts that fit around your class schedule. Build your resume, jumpstart your career regardless of your major, or simply support your college education by joining the Dining Services team. No experience is required. Learn more at dining.unt.edu/employment.

Housing

First-year students are required by university policy to live in a residence hall until the requirement has been satisfied. Resident halls are also open to other students who wish to live on campus.

Students who believe they qualify for an exemption may submit a request for review in accordance with the established exemption policy. Full policy details are available at www.housing.unt.edu.

The Housing Application is available through the Housing & Residence Life website. The website also provides information about the application process, housing assignments, timelines, and roommate requests. As part of the application process, students must complete a Housing License Agreement, which outlines the terms and conditions of living in a residence hall, student responsibilities, applicable fees and charges, and the process and timeline for requesting a refund. Guidelines for living in the residence halls are outlined in the Housing & Residence Life Handbook, available on the Housing & Residence Life website.

Room and board rates are subject to approval by the Board of Regents. A list of current rates is available online. For housing information, see www.housing.unt.edu, e-mail housinginfo@unt.edu, or phone 940-565-2610.

Living Learning Communities

Living Learning Communities (LLCs) at the University of North Texas offer first-year students who share an academic background, major or interest to live on the same floor in a residence hall. Students in LLCs have access to a mentor that works to connect students with others in their major or who share their interest.

Off-Campus Housing

Students who are not required to live in university housing under the terms of the housing policy may live where they choose. The university does not assume any responsibility in off-campus housing arrangements.

Office of Disability Access

The Office of Disability Access (ODA) is the campus resource for students who qualify for disability accommodations as defined by the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 as Amended. Part of the mission of the ODA is to provide reasonable accommodations and auxiliary aids to eligible students and assist with the resolution of student disability-related access barriers. In order to reduce or remove disability-related barriers on campus, ODA works with faculty, housing and other campus partners to facilitate accommodations and services. Students who are approved for academic accommodations are responsible for requesting a Letter of Accommodation be sent to their instructor by the ODA.

In addition to academic accommodations, the Office of Disability Access facilitates reasonable accommodations due to disability for Orientation, First Flight Week, and on-campus housing.

ODA staff members are available to counsel and advise students regarding disability-related matters and can assist in devising academic success strategies, including referral to other campus and community services.

The Office of Disability Access also works with campus partners to support students with disabilities in having access to all services and programs at UNT.

For more information, call 940-565-4323, visit Chestnut Hall, Suite 102; or visit the ODA website.

University-Provided Services

Career Center

The Career Center's Student Employment (SE) area assists students who have been accepted to UNT and are currently enrolled, or who have been enrolled within the previous year, in their job search by providing employment. Opportunities are available year-round through both on- and off-campus employers.

The Career Center provides comprehensive career planning and job search resources for students and alumni. These services assist in identifying career interests, exploring occupational pathways, and accessing relevant information to inform decisions related to internships, employment, and graduate education.

For more information about student employment and instructions for accessing Handshake to search for available positions, students may call 940-565-2105 or visit the Career Center in Sage Hall, Suite 202. Drop-in hours for I-9 appointments are available Monday-Friday, 11 a.m.-4 p.m., in Sage Hall, Suite 202.

Counseling and Testing Services

Counseling and Testing Services offers individual counseling related to personal, social and emotional concerns and vocational counseling for selection of a major field of study or career plan. Outreach programs and consultation are available for faculty/staff and student groups.

Counseling and Testing Services offers workshops designed to increase students' coping skills in a safe space and therapy groups that provide students an opportunity to obtain support from both clinicians and other students, regarding a variety of mental health topics. In order to join a group, students must contact CTS for an intake appointment. Counseling and Testing Services is located in Chestnut Hall, Room 311/313, and may be reached by phone at 940-565-2741, press 2, or by email at counselingandtestingservices@unt.edu.

Professional and Academic Testing

Professional and Academic Testing in Counseling and Testing Services includes a national testing center where various professional and academic tests are administered (e.g., TSI, CLEP, Pearson Vue exams, Meazure Learning exams, TCFP/FIDO, and other proctored, paper-based and computer-based exams). Professional and Academic Testing is located in Gateway Center, Room 140. The Testing Center may be reached by phone at 940-369-7617. For more information, please visit the Professional and Academic Testing website.

The Center for Leadership Development

The Center for Leadership Development serves as UNT's hub for student leadership education and involvement. Through leadership development programs, student organization support, mentoring initiatives, and Fraternity and Sorority Life, the Center helps students cultivate the knowledge, skills, and relationships needed to lead effectively in their communities, careers and future endeavors. The Center is located in the University Union, Room 335. For more information call 940-565-3021.

Diamond Eagle Student Resources Center

The Diamond Eagle Student Resources Center offers resources and community-building opportunities for UNT students. The Center includes the UNT Food Pantry for students experiencing food insecurity, Gowns for Grads for low-income and first-generation students, the UNT Community Garden, the Sustainable Arts Garden, and the We Mean Green Fund, among others.

Eagle Engagement Center

The Eagle Engagement Center offers programs and services designed to enhance the awareness, understanding and success of underserved student populations within the UNT community. The Center fosters a strong sense of belonging by connecting students with initiatives that support their academic, personal, and social development. In addition, the Center provides opportunities for students to engage as active citizens and emerging leaders through community-focused

programs and involvement experiences. Students can meet with center staff for 1:1 support or visit our office to engage in community building.

Non-Traditional Student Support

Additional initiatives facilitated by the center serve as dedicated resources for offcampus, commuter, parenting, and nontraditional students. Services include access to and navigating campus resources, mentorship, childcare resource and referral assistance, and information on transportation options such as carpooling and local transit routes. Signature events tailored to these student populations include Commuter Week, professional picture days, the Volunteer Fair, Parenting Student Spring Break, NonTraditional Student Week, and more.

First-Generation Success Center

The FirstGeneration Success Center advances its mission to empower, connect, and equip firstgeneration students by providing individualized 1:1 success coaching, facilitating first-generation themed programming and workshops, and resource navigation. Guided by a vision of fostering a community where firstgeneration students thrive, the Center offers programs that strengthen academic confidence, personal development, and campus engagement. Signature events—including FirstGeneration Celebration Week, the FirstGen Graduation Celebration, First-Gen Career Week, and the FirstGen Experience—build community and celebrate the achievements of firstgeneration students. The Center also supports the Emerald Eagle Scholars Program (EESP), which offers structured academic enrichment, leadership development, and financial support to help eligible students persist and graduate. Through these services and initiatives, the FirstGeneration Success Center plays a vital role in promoting belonging, resilience, and success among UNT's firstgeneration student community.

The First Generation Success Center is located in University Union, Room 377. For more information, call 9405653424 or visit firstgen.unt.edu.

Early Alert Response System

The UNT Early Alert Response System seeks to ensure that every student has knowledge of and access to all available campus resources. The Dean of Students office maintains and monitors the Early Alert Response System, and through this system identifies struggling students and connects them with academic support services, advising, and campus referrals.

Orientation and Transition Programs

Orientation and Transition Programs (OTP) provide resources and services to help students establish and attain their educational goals. Beginning with first-year students, the office serves as a central location to help students transition to the UNT campus, but also connect with their peers, faculty, staff and parents. These connections help guide and direct students throughout their educational experience at UNT and facilitate their success. For more information on Orientation and Transition Programs, stop by our office in the University Union, Room 376, call 940-565-4198, or visit the OTP website.

Student Emergency Support Program

The Student Emergency Support Program (SESP) is a comprehensive resource for students experiencing financial challenges. The team coordinates emergency financial assistance programs offered by UNT's colleges and programs. The SESP is also a link to resources on campus that assist students with housing/food insecurity, career counseling, and other services. For more information, stop by the UNT One Stop on the second floor of the ESSC, call 940 565-2000 or visit the SESP website.

Student Health and Wellness Center

The Student Health and Wellness Center (SHWC), located on the second floor of Chestnut Hall, is equipped with examination and treatment rooms, as well as a clinical laboratory and digital x-ray machine. Medical services are available to enrolled students paying the medical service fee. Medical care is not available on official university holidays. The SHWC operates on an appointment system. Call 940-565-2333 or go online to myosh.unt.edu to make an appointment. Forms, hours, and additional information are available online at healthcenter.unt.edu.

The Clinic Services page of the SHWC website lists the services available, including primary care, wellness exams, psychiatry, and more.

Students experiencing a medical emergency should call 911. Students who need non-emergency medical care when the SHWC is closed can check the SHWC website for available options.

Medical information is confidential and is not provided to others without a release signed by the patient. If a parent or guardian requests information on a patient under 18 years of age, the SHWC provides the information as allowed under the law.

The SHWC recommends that all students have current immunizations for tetanus, pertussis, rubella, mumps, measles and hepatitis A and B. Effective October 1, 2013, a bacterial meningitis vaccination is required by Texas state law for any new or transfer student under the age of 22 who is attending UNT for the first time, or for any returning students who have not been continuously enrolled for the previous long semester. Additional information on this requirement, including forms and the submission process, is available at registrar.unt.edu/meningitis-vaccine-requirement. The SHWC recommends that all UNT students consider receiving the bacterial meningitis vaccination, even if not required by state law.

Health Insurance Program

A group student health insurance plan is offered for students enrolled at UNT. Interested students can enroll online at https://unt.myahpcare.com.

International students should refer to "International Student Health Insurance Requirement" in the International Affairs section of the catalog.

Student Legal Services

Student Legal Services provides free legal advice and assistance to currently enrolled students. This office also maintains a variety of legal publications for student use. Students are encouraged to meet with an attorney during Open Legal Clinic hours or contact the department to schedule an appointment. For more information, please refer to the Student Legal Services website, email Studentlegal@unt.edu or call 940-565-2614.

Student Money Management Center

The Student Money Management Center (SMMC) provides tools and solutions UNT students need to achieve financial independence during their college experience. SMMC sponsors free workshops, seminars, and clinics covering a variety of personal money management topics as well as free individual consultations with staff and peer counselors. SMMC educational opportunities are open to all members of the UNT community. For information, visit the SMMC website, call 940-369-7761 or stop by the 2nd floor of Eagle Student Services Center for in-person services.

Student Veteran Services

Student Veteran Services (SVS), in collaboration with a number of university departments, serves as a safe place to help student veterans navigate university resources for academic success. The focus of SVS is to help remove barriers for student veterans through transition support through campus life, providing resources both on and off campus to assist student veterans, and giving due recognition to the service members in the UNT community through programs and support initiatives. For more information, please visit the center in Sage Hall, Suite 236, call 940-369-8021, or e-mail veterans@unt.edu for further assistance.

UNT TRIO Programs

TRIO develops, implements and administers programs specifically designed to support students with demonstrated financial need, educational need, and individuals with a disability. Projects administered through federal TRIO grants serve students and adults throughout the United States. The first TRIO program at the

University of North Texas was established in 1980. UNT TRIO currently administers programs that provide services to students from middle school level through undergraduate level. Contact TRIO at 940-565-4754 or trio@unt.edu.

Student Organizations

Eagle Ambassadors

The UNT Eagle Ambassadors are a group of outstanding students with various majors and backgrounds who are selected to provide a student perspective about UNT through campus tours. They introduce thousands of prospective students and visitors to the University of North Texas annually and are known for their friendliness, genuine love for UNT and excellent customer service.

Students chosen to be part of the Eagle Ambassadors receive valuable training and experience, making them more marketable for today's workforce. In addition to monetary compensation and scholarship opportunities, Eagle Ambassadors participate in special events with the Office of the President, Enrollment and Advancement.

Student Activities

One of the goals of Student Activities is to help students get involved on campus to maximize their college experience. Student Activities promotes a sense of community and UNT pride while enhancing the social, intellectual, and developmental growth of students as individuals or members of student organizations. This is achieved through student organization services, campus-wide events and traditions, and the North Texas Spirit program.

For more information or help contacting a registered student organization, contact Student Activities in the University Union, Room 345; follow on Instagram or Facebook (@UNTactivities); visit studentactivities.unt.edu; or call 940-565-3807.

Student Government Association

The Student Government Association (SGA) promotes the interests and opinions of students. As the official voice of the undergraduate student body, SGA represents students in matters of policy and student welfare. SGA sponsors programs and projects that enhance students' educational and collegiate experience.

To learn more about services or becoming a member, visit SGA in the University Union, Room 344; follow on Instagram (@UNTSGA); visit sga.unt.edu or call 940-565-3850.

University Program Council

The University Program Council (UPC) is a student-run programming board that provides programs that are entertaining, educational, and free for students. UPC is comprised of several student executive positions and a student volunteer board that plans and implements events on campus. Students have the opportunity to join UPC at the beginning of each semester and assist in developing new ideas for future events, as well as promote and organize events.

Follow @UNTUPC on Instagram, or visit the UPC website for more information about UPC and upcoming events. To pick up a printed semesterly calendar, visit University Union, Suite 221.

Athletics and Recreational Sports

Intercollegiate Athletics and Recreational Sports at UNT offer a wide range of opportunities for recreation. Accessible sports facilities include the Pohl Recreation Center with swimming pools, gymnasiums, an indoor soccer court, climbing wall, weight room and cardio area, 1/8 mile indoor track, group fitness rooms, and lounge area. The Waranch Tennis Complex has 12 lighted tennis courts.

North Texas Athletics

Mean Green athletics programs compete at the Division 1 level of the National Collegiate Athletic Association and are members of the American Conference. The university is represented by athletic teams in the following sports: men's and women's basketball, men's and women's cross country and track and field, football, men's and women's golf, women's soccer, softball, women's swimming and diving, women's tennis, and women's volleyball. North Texas Athletics resides in the 46,000-square-foot Athletics Center, which houses administrative offices, a football locker room, team meeting rooms, strength and conditioning facilities, and sports medicine facilities.

UNT students are admitted free to all athletic events with a valid student ID. For more information, see the UNT Athletics website.

Recreational Sports

Recreational Sports is located in the Pohl Recreation Center and offers an array of programs and experiences designed to support and inspire the wellness of the UNT Community. Recreational Sports offers programs in areas ranging from aquatics to esports. For more information and program details, download the UNT Rec Sports app or visit the Rec Sports website. Follow @UNTRecSports on social media for the latest news, program reminders, and special giveaway events.

Annual Events and Series

Homecoming

Homecoming activities occur each fall with a full week of events sponsored by various campus departments and student organizations. Annual events include a picnic, bonfire, and tailgating before the football game. Additionally, departmental receptions and student organization gatherings welcome alumni and friends returning to the campus.

For more information, contact Student Activities in the University Union, Room 345; follow on Instagram or Facebook (@UNThomecoming); visit the Homecoming website; or call 940-565-3807.

UNT Scholars Day

Scholars Day celebrates the work of undergraduate researchers at UNT. Students do not need to be members of the Honors College to present. Undergraduates are invited to submit abstracts for a poster, or a verbal presentation, about original research or statements of artistic innovation, or other creative/interpretive work conducted under the guidance of a faculty mentor at UNT during the past academic year.

Facilities

The term facilities describes all structures on the campus or otherwise under the control of the university. Some of the more specialized facilities are listed below. A map of the campus may be found on the UNT Parking website.

The Coliseum

The Coliseum, also known as the "Super Pit," provides programs, services and facilities that enhance the educational experience and foster a sense of community for both the UNT and Denton communities. The Coliseum is home to North Texas Men's and Women's basketball teams and serves as the venue for UNT Commencement.

For information regarding Coliseum reservations, contact the Coliseum scheduling office at 940-565-2557 or email coliseum@unt.edu.

Gateway Center

The Gateway Center is a multipurpose facility that houses classrooms and conference rooms, the Club at Gateway Center, offices for General Counsel, the Division of University Advancement, the UNT Alumni Association, and a banquet facility that accommodates both on-and off-campus events.

For information regarding Gateway Center reservations, contact the Gateway Center scheduling office at 940-369-8334 or email gateway@unt.edu.

Pohl Recreation Center

The Pohl Recreation Center, managed by Recreational Sports, provides a variety of facility space and programming for the recreation and fitness needs of the students, faculty and staff at

UNT. The Rec Center includes weight and cardio areas; three multi-purpose courts for basketball, volleyball, and badminton; an indoor soccer gymnasium; climbing and bouldering walls; an indoor lap pool; and an 1/8 mile indoor track. Also located in the facility are locker rooms, a lounge and seating areas, meeting rooms, two group fitness rooms, a lighted outdoor basketball court, and the Recreational Sports office.

For more information about the Pohl Recreation Center, contact Recreational Sports by calling 940-565-2275 or emailing recsports@unt.edu. Information is also available on the UNT Rec Sports app and on the Recreational Sports website.

University Union

The University Union offers an array of essential services, programs, and opportunities. It serves as a focal point for both formal and informal interactions, fostering community and engagement on campus.

Within the University Union, individuals can access a wide range of offices, services, and student organizations essential to their academic and personal needs. These include Barnes & Noble at UNT, Union Administration, Student Activities, Dean of Students, DATCU, ESSC, Eagle Post, Design Works, Eagle Engagement Center, Center for Leadership Development, University Program Council (UPC), the Union Arts Center, Orientation and Transition Programs, Student Legal Services, Student Government Association (SGA), and Graduate Student Council (GSC).

The University Union also offers a variety of dining options like Jamba Juice, Chick-Fil-A, Burger King, Union Burger, Krispy Krunchy Chicken, Qdoba, Verde Everyday Express, Campus Chat Food Court and Avesta. Whether students are in the mood for a quick snack or a full meal, there is something to satisfy every palate. Beyond its dining options, the University Union also serves as a welcoming space for students to unwind between classes or participate in the numerous events held here each week. Whether seeking a moment of relaxation or wanting to engage with campus life, the University Union provides an atmosphere for all members of the UNT community.

For more information, visit the Union website, contact the Union by calling 940-565-3805, or email union@unt.edu. Follow @UNTUnion on social media platforms for information about events and resources in the Union.

Contact Conference & Event Services for event planning and facility use by calling 940-565-3804, emailing universityunion.schedulingoffice@unt.edu or visiting union.unt.edu.

Academic Resources and Administrative Offices

The Academic Resources and Administrative Offices page includes information relevant to students' academic life at UNT, including information about academic advising, the UNT Libraries and information technologies, and administrative offices like Financial Aid & Scholarships, Student Accounting and the Registrar's Office.

Academic Resources

Academic Advising

Academic Advising teams at UNT helps students understand their degree plans, choose courses that satisfy degree requirements, clarify university policies, and connect to campus resources. Students should contact their academic advisors if they have questions about registering for courses or about unfulfilled requirements for their degree. In addition to advisors who work with specific majors, there are Academic Advising offices with specialized advising available for students who are unsure of their major or those who would like to prepare for a career in professional health, among other options. For more information, please visit the general Academic Advising website or a college-specific academic advising website.

Learning Center

The Learning Center (LC) supplements and supports academic excellence and life-long learning. A wide range of individual, group and self-help programs and materials are provided to maximize the academic potential of all University of North Texas students. Programs and services housed within the center include GRE course prep help, tutoring (one-on-one and virtual), Supplemental Instruction, Academic Coaching, and academic-based workshops, among others. For additional information see the LC website.

Libraries

The UNT Libraries facilitate teaching, learning, and research for students, faculty and information seekers at UNT and around the world. The staff, spaces, services, and collections support students' academic success and lifelong learning. The Libraries offer access to more than six million print and digital items, laptop checkout, a makerspace, and entertainment, along with expert personnel to assist patrons in achieving their academic and scholarly goals. For more information, please see the UNT Libraries website.

University Information Technology Services

The UNT Helpdesk provides support services for students, faculty and staff for UNT-related technology issues, including account-based issues, usage of UNT-issued resources (email, Microsoft365, etc.) and more. Users can request support over the phone, in person or online for any issues related to their UNT account or related resources. The Helpdesk can be reached at 940-565-2324, in person at Sage Hall, Room 330 or at ithelp@unt.edu or helpdesk.unt.edu.

UNT offers many on campus resources including in-person support, WiFi, and computer labs spread throughout campus. Students can find a list of available computer lab resources at computerlabs.unt.edu.

UNT has designated email as an official form of communication between the university and students. UNT provides email accounts to all students registered at the university through Eagle Connect. Students are automatically assigned email accounts during the application process. For questions or support options, please visit helpdesk.unt.edu.

Writing Center

The UNT Writing Center offers free tutoring to UNT students in all disciplines and at all stages of their academic careers. See the Writing Center website for information about scheduling an in-person or online tutoring appointment and for information about walk-in appointments.

Administrative Offices

Financial Aid & Scholarships

Financial Aid & Scholarships (FAS) at the University of North Texas offers a variety of options to assist students in financing their education. For more information on Financial Aid & Scholarships at UNT, please visit financialaid.unt.edu, visit the UNT One Stop on the 2nd floor of the Eagle Student Services Center, call 940-565-2302 or contact FAS via ScrappySays.unt.edu.

Registrar's Office

The Registrar's Office handles course registration, transcripts and academic records, graduation and degrees, and grades and exams. For important registration and graduation deadlines, residency information, directory information, and information about the course schedule, among other topics, please visit the Registrar's Office website. The answers to common questions and contact information for the Registrar's Office may be found through the ScrappySays website.

Student Accounting

Student Accounting at UNT handles the billing and collection of tuition and fees, veterans' education benefits, departmental financial services, and refunds, among other areas. Please see the Student Accounting website for more information about important dates, ID cards, tuition and fees, and veterans' benefits. The answers to common student accounting questions may be found through the ScrappySays website.

Campus and Community Resources

The Campus and Community Resources page contains information about offices and services available to current UNT students, former UNT students, UNT retirees, and various local community populations.

Campus Safety Resources

Eagle Alert

Eagle Alert is an automated system that allows UNT administrators to quickly contact campus community members about emergency situations affecting the safety and well-being of people on and around the UNT campus. UNT conducts a routine test of its Eagle Alert system every month.

The system sends a message (recorded voice and text) to the user's phone and an email to all active students, faculty and staff. In addition to receiving text and voice messages by phone, the system includes a feature that overrides most computers operated by UNT in offices, classrooms and public spaces on campus. During the test or in the event of an emergency, computer screens, presentation screens and digital signs will display a full-screen test alert. Users have the option to click out of the screen after the alert has displayed.

The system must have the user's updated information and permission to send text messages for Eagle Alert. Only phone numbers in the U.S. 50 states are supported. Students should update their phone numbers in my.unt.edu.

1. Log in.
2. Click on the "Profile" tile.
3. Click on either "Contact Detail" or "Eagle Alert" — the information is the same in both places.
4. Update your contact information and/or your preference for receiving Eagle Alert via text message.

UNT Police Department

The UNT Police Department serves as the university's principal provider of safety and security for students, faculty, staff and visitors. Located at 1700 Wilshire in the Sullivant Public Safety Center, the department operates 24 hours a day.

University Police officers are licensed by the State of Texas and enforce state and local laws as well as university rules and regulations. The department offers numerous programs and services available to the university community.

For more information, contact the UNT Police Department at 940-565-3000, or visit their web site at police.unt.edu.

Transportation Services

Transportation Services handles both parking and transportation options at UNT.

Transportation

The UNT Shuttle serves the Denton campus including Discovery Park, Eagle Point, and various off-campus student housing complexes. Additionally, students can access the Denton local bus service fare-free by presenting a valid UNT ID.

For information regarding hours of operation, route schedules and alternative transportation options, visit the Transportation Services website.

Parking

Parking regulations, maps detailing parking facilities, parking office hours, contact information, and the links to pay parking citations online or to purchase a parking permit online may be obtained at transportation.unt.edu. All student, staff and faculty parking permits (except TF permits) are sold online based on availability.

Community Resources

Lifelong Learning and Community Engagement

The Osher Lifelong Learning Institute (formerly Emeritus College) provides programs, including classes, events, trips, and special lectures, for the 50 and better community and UNT retirees.

Lifelong Learning and Community Engagement is located at 1500 N. Interstate 35 Denton, TX, in the Support and Services Building (SSB). For additional information, call 940-369-7293, visit the websites at olli.unt.edu, or write the director, 1155 Union Circle #310560, Denton, TX 76203-5017.

Speech and Hearing Center

The UNT Speech and Hearing Center offers services to adults and children in the Denton-Dallas-Fort Worth areas with speech, language, reading, swallowing, and hearing disorders. Audiology services include hearing testing, hearing aid dispensing and management, repair of hearing aids, management of cochlear implants, assessment of auditory processing disorders, assessment of tinnitus, vestibular assessment, and aural (re)habilitation programs. Speech-Language Pathology services include evaluation and treatment of language, articulation, fluency, voice, resonance, and swallowing disorders. To schedule an appointment or inquire about clinic services, fees and payment options, please call 940-565-2262. Additional information can be found at https://pahs.unt.edu/aslp/aslp-clinics.html.

UNT Alumni Association

The UNT Alumni Association supports lifelong engagement with the university through networking, traditions, volunteer opportunities and programs that connect students, graduates and friends of UNT. Offerings include the Student Alumni Association (SAA), scholarships and opportunities designed to strengthen the Mean Green community before and after graduation. For more information, visit the UNT Alumni Association website (untalumni.com) or call 940-565-2834.

Policies, Procedures and Disclosures

The Policies, Procedures and Disclosures page includes information about student responsibilities, university policies and procedures, how the university follows state and federal policies, and annual federal and state disclosures.

Student Responsibilities

Students are responsible for their own belongings and keeping their personal information current with the university.

Changes of Address

Students must keep their enrollment, permanent and local mailing address information current at all times and on all documents at the university. Students who change their enrollment or mailing address must notify the Registrar's Office immediately by calling 940-565-2111 or updating their address at my.unt.edu.

Identification Card Regulations

The UNT ID card is a student's official university-issued identification at the University of North Texas. Students should always carry their UNT ID card. The official UNT ID card provides access to on-campus amenities and activities, including the Library, events on campus, the recreational center, athletic events, on-campus dining, residence halls, and more.

Lost ID cards may be replaced with a $10.00 charge placed on a student's account.

The card is deactivated when a student is not enrolled in courses. Students are asked to retain their ID cards, even though they may not be enrolled. The card is reactivated when the student re-enrolls in courses at UNT.

See the UNT ID cards page on the Student Accounting website for more information.

Liability for Personal Loss

The university is not responsible for and does not assume any liability for loss of or damage to personal property, including vehicles. Students are encouraged to obtain personal insurance coverage for loss of or damage to possessions on campus, including possessions in dormitories and vehicles.

University Policies and Procedures

Code of Student Conduct

The University has established the Code of Student Conduct to promote the well-being, honor, and dignity of all who live, learn and work in the UNT educational community. The Code of Student Conduct is intended to foster a safe environment conducive to learning and development, as well as to hold students accountable through an educational process that balances the interests of individual students with the interests of the University. Students and student groups are expected to conduct themselves in a manner that demonstrates respect for the rights and property of others and upholds the integrity and values of the University community. The Dean of Students Office's Student Conduct and Community Standards staff enforces the Code of Student Conduct.

The most up-to-date Code of Student Conduct (policy 07.012) is available on the UNT Policy website.

Notice of Complaint

The university may issue an official request or notice of complaint to a student to appear before a university administrator when a student's conduct or behavior is reasonably believed to be in violation of a published university policy. A student who receives a notice of complaint should always consider it important and respond immediately. Failure to respond to a notice of complaint can result in a decision being made on the allegations(s) based on the information available, in your absence, which can result in disciplinary action up to and including involuntary withdrawal from the university and a block on enrollment.

Student Academic Integrity

The University of North Texas promotes the integrity of learning and embraces the core values of trust and honesty. Academic integrity is based on educational principles and procedures that protect the rights of all participants in the educational process and validate the legitimacy of degrees awarded by the University.

The Student Academic Integrity policy covers categories of academic dishonesty such as cheating, plagiarism, forgery, fabrication, facilitating academic dishonesty and sabotage. It includes descriptions of infractions, penalties and procedures. In the investigation and resolution of all allegations of student academic misconduct, the university's actions are intended to be restorative, educationally sound, fundamentally fair, and based on reliable evidence. The full policy (06.003) is available online at policy.unt.edu.

Student Complaints

The Student Complaint Policy of the University of North Texas provides students with a procedure for resolving complaints against UNT faculty, staff, and agents of the university. The complaint policy does not supersede other UNT policies relative to student complaints or appeals, including discrimination, student financial services, student financial aid, admissions, academic policies, human resources, involuntary withdrawal, disability accommodations, or the Code of Student Conduct. Students can file complaints at report.unt.edu.

The Dean of Students Office assists the student throughout the complaint process. UNT believes that most complaints can be resolved informally. All university contacts with the aggrieved student will stress the preferred mechanism of an informal resolution. A complaint filed, either formally or informally, will not be considered if it is filed more than 120 days after the event or occurrence giving rise to the complaint or knowledge of the event or occurrence. A student must seek resolution of a complaint on their own behalf. Complaints filed on behalf of another student anonymously will not be considered. A student's complaint may be withdrawn at any point by the student, thereby halting the complaint.

Free Speech

The University of North Texas recognizes that freedom of expression and public assembly are fundamental rights of all persons and are essential components of the education process. These activities promote debate and the sharing of ideas, which are the foundation of educational institutions.

The responsibility of the University is to operate and maintain an effective and efficient institution of higher education, which requires regulation of the time, place and manner of assembly, speech, and other expressive activities on the grounds of the University. In keeping with this responsibility, students, faculty, staff and visitors are free to exercise the rights to assemble and engage in expressive activity in a constitutionally-protected manner subject only to the content-neutral regulations necessary to fulfill the mission and obligations of the University; preserve the rights of others, coordinate multiple uses of limited space; assure preservation of the campus facilities and grounds; and assure financial accountability for any damage caused by these activities.

The UNT Free Speech policy (07.006) can be found on the UNT Policy website.

Student Organizations Policy

The University of North Texas recognizes the right of any group of students to form a voluntary organization for purposes not forbidden by local, state or federal law, or university policy. All organizations that wish to obtain certain benefits (e.g., to reserve space on campus) must register each school year with Student Activities.

Policies regulating the approval, functioning, and privileges of registered organizations are available from Student Activities, University Union, Room 345; studentactivities.unt.edu/orgs; or 940-565-3807.

Facilities Use Policy

The term *facilities* describes all structures on the campus or otherwise under the control of the university. Use of these facilities is governed by the university's "Facilities Use" policy. Requests may be made through the University Union Event Planning and Scheduling Services One Stop Shop at 940-565-3804.

Student organizations wishing to reserve facilities should contact the Student Activities Center, University Union, Suite 345, 940-565-3807.

Hazing

Hazing is a criminal act under the state law of Texas.

By definition, hazing is any intentional, knowing, or reckless act, occurring on or off campus, by one person alone or acting with others, directed against a student, for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in a student group, regardless of willingness to participate, if the act:

- Is any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing a harmful substance on the body, or similar activity;
- Involves sleep deprivation, exposure to the elements, confinement in a small space, calisthenics or other similar activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.;
- Involves consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance that subjects the student to unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- Any activity that induces, causes, or requires a student to perform a duty or task that involves of the Penal Code, Code of Student Conduct; or other university policies.
- Involves coercing the student to consume:
    - a drug; or
    - an alcoholic beverage or liquor in an amount that would lead a reasonable person to believe that the student is intoxicated.

Hazing occurs regardless of whether the act is committed on or off the university campus and regardless of whether the student victim may have consented to or acquiesced in the activity.

A person engages in hazing not only by directly engaging in hazing activity, but also by soliciting, encouraging, directing, aiding or attempting to aid another in hazing; or by recklessly allowing hazing to occur; or by knowingly failing to report firsthand knowledge that a specific hazing incident is planned or has occurred.

Any person reporting a specific hazing incident involving a student to the dean of students or other appropriate university official is immune from civil or criminal liability that might otherwise be incurred as a result of the report.

Penalties for Hazing

UNT will discipline any student or student group found responsible for hazing. Sanctions for students found responsible for hazing can include probation, loss of privileges, suspension, or expulsion. Sanctions for student groups can include probation, loss of privilege, and suspension. Students and student groups can also be assigned educational sanctions designed to change behavior and reduce the risk of future misconduct.

When hazing happens within a student group, UNT may find both the student group and individual students responsible. A student group can be found responsible if it condones or encourages hazing, or if its officers, members, or alumni commit or assist in the commission of hazing. Those found responsible for hazing will be listed on the UNT Hazing Violations website in accordance with the Texas Education Code, sections 37.151 (5) and (6).

Students may be prosecuted for committing an act of hazing or for failing to report first-hand knowledge of hazing.

Incidents or planned incidents of hazing must be reported to any one of the following:

- Dean of Students Office, 940-565-2648 or 940-565-2039
- UNT Police Department, 940-565-3000
- UNT Hazing Hotline, 940-369-STOP (7867)
- Report.unt.edu

Amnesty: The university may elect not to pursue disciplinary sanctions for a violation of this policy against persons who voluntarily and in good faith provide information to the Dean of Students or an appropriate university official related to hazing.

The UNT Hazing policy (07.013) can be found on the UNT Policy website.

Motor Vehicle Regulations

People who operate motor vehicles, bicycles and other methods of transportation on the UNT campus must comply with the Texas Transportation Code and published university regulations regarding vehicle and bicycle use, parking, use of virtual permits, and penalties for violation. The regulations are available online at UNT Transportation Services.

Other Policies

Additional policies and guidelines pertaining to particular subjects or for specific publics are listed in other publications, such as the Housing Handbook, available in the Housing and Residence Life Office; the Code of Student Conduct, available at studentaffairs.unt.edu/dean-of-students/conduct; Parking Regulations, available from the Parking Office and the UNT Bookstore in the University Union. International students should consult the International Admissions and Advising Center for information regarding policies and procedures required by federal regulation agencies.

All university policies are subject to change throughout the year. The UNT Policy manual can be found on the UNT Policy website.

State and Federal Policies and Procedures

The University of North Texas and its students, faculty and staff are required by the state and/or the federal government to follow certain policies. The university is also required to publish certain policies annually. Some of these policies are listed below.

Texas Uniform Admission Policy (SB 3826)

State law TEC 51.803-51.809, Uniform Admissions Policy (UAP) requires applicants to four-year public universities to meet college readiness standards through completion of a high school graduation program or equivalent or through SAT or ACT score benchmarks. Students who attend an out-of-state high school are exempt from the UAP.

Students must meet one of the following college readiness standards in order to be eligible for consideration for admission at UNT:

1. Successfully complete the Foundation (HB5), Foundation with Endorsements (HB5), Distinguished Achievement (HB5), Minimum (UAP), Recommended (UAP) or Distinguished (UAP) high school program; or
2. Successfully complete a curriculum that is equivalent (as documented by the high school) in content and rigor to the Foundation, Foundation with Endorsements, Distinguished Achievement, Minimum (UAP), Recommended or Advanced (Distinguished Achievement) high school program at a high school that is exempt from offering such programs; or
3. Satisfy the College Readiness Benchmarks on the SAT or ACT assessment: SAT - 1500 out of 2400 (for tests prior to March 2016) or 1090 out of 1600 (for tests March 2016 to present) or ACT - 18 English, 22 Reading, 22 Mathematics and 23 Science

Under TEC Section 51.807 and with consultation of the Texas Education Agency, the Texas Higher Education Coordinating Board has determined that the high schools are responsible for providing the appropriate documentation to confirm the curriculum requirements.

Applicants meeting the curriculum or the SAT/ACT assessment score requirements mandated by the Texas Education Code, but not meeting UNT's admission requirements, may be reviewed individually by the Office of Admissions.

Americans With Disabilities Act

The University of North Texas does not discriminate on the basis of disability in employment, admission, treatment, or access to its programs or activities. UNT is committed to providing equal educational access for qualified students with disabilities in accordance with state and federal laws including the Americans with Disabilities Act of 1990 as Amended (ADA) and Section 504 of the Rehabilitation Act of 1973. Additionally, the University is committed to making all UNT-sponsored programs and activities accessible, as required by the Texas Accessibility Standards and the ADA Accessibility Guidelines. To this end, all academic units are willing to make reasonable and appropriate adjustments to the classroom environment and the teaching, testing, or learning methodologies in order to facilitate equality of educational access for people with disabilities.

For information about student accommodations, contact the Office of Disability Access at 940-565-4323. Faculty and staff, including student staff, seeking accommodations should contact Workplace Accommodations with UNT System Office of Equal Opportunity at workplace.accommodations@untsystem.edu.

Sexual Misconduct Reporting

By Texas law UNT employees are mandated to report sexual misconduct, sexual assault, dating violence and stalking to the Title IX Coordinator or the Deputy Title IX Coordinator. If, in the course and scope of their employment, an employee witnessed or received information that the employee reasonably believes constitutes an incident of sexual harassment, sexual assault, dating violence, or stalking, committed by or against a student who was enrolled at the institution at the time of the incident, the employee must report the incident. Reports can be made to report.unt.edu or to TitleIX@unt.edu.

The UNT Title IX office is located in the Hurley Administration Building, Suite 175. The Title IX Coordinator is LaToya Haynes, available at LaToya.Haynes@unt.edu or 940-565-2759.

Annual Disclosures

UNT Drug-Free Schools and Communities Act

The University of North Texas is required to establish a drug and alcohol prevention program for its students and employees, pursuant to the Drug-Free Schools and Communities Act Amendments of 1989. UNT is also required to provide this information to students, faculty, and staff upon entry and annually. A biennial review of this program is done to determine its effectiveness, to implement changes to the program if they are needed and to ensure that the university's disciplinary sanctions described are consistently enforced. The DFSCA report can be found at deanofstudents.unt.edu.

Standards of Conduct

University of North Texas regulations prohibit the unlawful possession, use, distribution and sale of alcohol and illicit drugs by university students and their guests and for employees on university-owned or controlled property and at university-sponsored or supervised activities.

University Discipline

The penalties for misconduct range from Warning to Expulsion. Typically, students who have violated the Code of Student Conduct will be referred to the Recovery and Intervention Support and Education (RISE) Center to set up a meeting with the Substance Use Resource & Education (SURE) program to complete an individualized education plan.

Faculty sanctions are listed under the UNT Faculty Misconduct and Discipline Policy Number 06.025.

Staff sanctions are listed under the Staff Employee Discipline and Discharge Policy Number 05.033.

Legal Sanctions

Local, state, and federal laws also prohibit the unlawful possession, use, distribution and sale of alcohol and illicit drugs. Criminal penalties for violation of such laws range from fines up to $20,000 to imprisonment for terms up to and including life.

Health Risks

Specific serious health risks are associated with the use of alcohol and illicit drugs. Some of the major risks are listed below. For more information, contact the Recovery and Intervention Support and Education Center at 1800 Chestnut, Chestnut Hall, Suite 301, or by calling 940-565-3177.

- *Alcohol and other depressants (barbiturates, benzodiazepines, sedatives, and tranquilizers)*: Accidents as a result of impaired ability and judgment, alcohol poisoning, overdose when used with other depressants, damage to heart, liver, pancreas, and a developing fetus. Increase risk on cancer, decrease effectiveness of immune system. Overdose can occur when used with other depressants. Tolerance, physical dependence, and withdrawal can occur.
- *Cannabis (also known as marijuana)*: Short-term effects include problems with memory, thinking, problem-solving, and physical coordination. Can cause confusion, anxiety, and paranoia, and increase the risk of respiratory ailments. Can interfere with judgment, attention span, concentration, and overall intellectual performance. Impairs driving ability. May cause psychological dependence.
- *Opioids (heroin, fentanyl, oxycodone, hydrocodone, codeine, morphine)*: Harmful effects include drowsiness, confusion, nausea, slowed breathing. Long term effects include liver and kidney disease, lung complications, mental disorders, and sleep disruption. Tolerance, physical dependence, withdrawal, and overdose can occur.
- *Stimulants (amphetamines, methamphetamines, cocaine, and methcathinone)*: Chronic, high dose use can cause agitation, hostility, panic, aggression, chest pain, excessive sweating, vomiting. Tolerance, physical dependence and overdose can occur.
- *Nicotine*: Tobacco smoke contains thousands of chemical compounds, many of which are known to cause cancer. Nicotine, which is a central nervous system stimulant, produces an increase in heart and respiration rates, blood pressure, adrenaline production, and metabolism. Physical dependence and withdrawal from nicotine can occur.
- *Inhalants*: Inhalants are a diverse group of chemicals that easily evaporate and can cause intoxication when their vapors are inhaled. Most inhalants are central nervous system depressants. The use of these drugs slows down many body functions. Chronic use of some of these chemicals can lead to irreversible liver damage and other health problems. High doses can cause loss of consciousness and sudden death.

Resources

Students may contact the Recovery and Intervention Support and Education Center (RISE) for detailed information concerning resources for alcohol and other drug prevention education, counseling and referral. RISE is available at 1800 Chestnut, Chestnut Hall, Suite 301, or by calling 940-565-3177. Faculty and staff members may contact the Employee Assistance Program at 800-343-3822 or Human Resources at 940-565-4817.

Annual Security and Fire Safety Report

The Clery Act requires that U.S. colleges and universities that receive federal financial aid disclose information about crime and safety on and around their campuses. In meeting the requirements of the Clery Act, the university publishes the Annual Security and Fire Safety Report informing the campus about programs and services to enhance campus security, crime statistics, fire safety, fire statistics, and student disciplinary referrals for certain crime-related conduct. The Annual Security and Fire Safety Report is available at clery.unt.edu.

Notification of Penalty for False Alarm or Report

The following notification is mandated by Texas Education Code Sec. 51.219, which mandates that the university notify students of the penalty for false alarm or report.

A person commits an offense if he knowingly initiates, communicates, or circulates a report of a present, past, or future bombing, fire, offense, or another emergency that he knows is false or baseless and that would ordinarily:

1. Cause action by an official or volunteer agency organized to deal with emergencies;
2. Place a person in fear of imminent serious bodily injury; or
3. Prevent or interrupt the occupation of a building, room, place of assembly, place to which the public has access, or aircraft, automobile, or other mode of conveyance.

An offense under this section is a Class A misdemeanor unless the false report is of an emergency involving a public or private institution of higher education or involving a public primary or secondary school, public communication, public transportation, public water, gas or power supply or other public service, in which event the offense is a state jail felony.

A false threat can be communicated through any means (e-mail, phone, in writing, verbally, social media, etc.). An individual adjudged guilty of a state jail felony shall be punished by confinement in a state jail for any term of not more than two years or less than 180 days and, in addition to confinement, may be punished by a fine not to exceed $10,000.

UNT students should be aware that the State of Texas takes these threats seriously, and the legal consequences, which are severe, go beyond anything that the University's Code of Student Conduct will address.

UNT at Frisco

Locations

UNT at Frisco Landing 12995 Preston Road Frisco, TX 75033 972-668-7100 Email: UNTFrisco@unt.edu Web site: frisco.unt.edu	UNT at Frisco - Inspire Park 6170 Research Road Frisco, TX 75033 496-362-6474 Email: inspirepark@unt.edu Web Site: frisco.unt.edu

UNT at Frisco is a branch campus comprised of two buildings—Frisco Landing and Inspire Park—located in one of the fastest growing regions in the nation, offering degree programs aligned with regional workforce needs and emerging industries. The campus features modern, collaborative learning environments including state-of-the-art classrooms and workspaces, The Spark Makerspace, and student amenities such as a café, walking trails and an outdoor amphitheater. Through career-focused curricula and applied, project-based learning, students engage directly with industry partners to develop practical skills in high-demand fields.

Programs of Study

UNT continually updates the programs and course offerings at UNT at Frisco to help students succeed in attaining in-demand careers and in continuing their education to benefit their current positions. Most of the schools and colleges at UNT offer programs on the UNT at Frisco campus. A current list of programs is available on the UNT at Frisco website.

Undergraduate Programs	Graduate Programs
• Advertising and Brand Strategy, BS • Applied Arts and Sciences, BAAS • Applied Project Design and Analysis, BS • Biology, BA • Biology, BSBIO • Business Integrated Studies, BBA • Computer Science, BS • Data Analytics certificate • Data Science, BS • Education, BS (EC-6 with ESL certification) (UNT at Frisco and UNT at Frisco-Inspire Park) • Event Design and Experience Management, BS • Event Management certificate • Finance, BBA • General Business, BS • Hospitality Management, BS • Industrial Distribution, BS • Information Technology, BS • Integrative Studies, BS • Management, BBA • Marketing, BBA • Marketing with a concentration in Professional Selling, BBA • Project Design and Analysis, BS • Psychology, BA • Psychology, BS • Residential Property Management certificate • Sport Entertainment Management, BBA (hybrid program) • Supply Chain Management, BS	• Advanced Data Analytics, MS • Business Analytics, MBA/MS • Business Administration, MBA • Doctor of Business Administration, DBA • Data Analytics graduate certificate • Data Science, MS • Educational Leadership, EdD • Educational Leadership, PhD • Health Informatics, MS • Information Science, PhD (hybrid program) • Interdisciplinary Studies, MS • Learning Technologies, MS • Sport Entertainment Management, MBA (See Graduate Catalog for More Information)

Academic Advising

Students who want to attend UNT at Frisco are advised through the academic college that offers the degree they would like to attain.

- Students should indicate to their advisor that they intend to be a Frisco student and would prefer a Frisco schedule
- Students should visit the Undergraduate Advising Office Directory or Graduate Advising Directory websites to identify how and when their colleges provide advising services in Frisco

Counseling Services

Students have access to counseling services and resources through UNT and at UNT at Frisco. These services include group workshops, individual counseling, and professional and academic testing, among others.

Counselors are available on the Frisco campus Tuesday and Wednesday 8 a.m.-5 p.m. To make an appointment, call 940-565-2741 and ask for Frisco availability.

For more information and resources, students may visit the Counseling and Testing website. For after-hours needs, students should call 940-565-2741 and press 1 to speak to a crisis counselor immediately.

For emergencies, please call 9-1-1.

Disability Accommodations

Students may request reasonable accommodations for a disability through the Office of Disability Access. For more information about the accommodation process and available accommodations, visit the Office of Disability Access (ODA) website. Staff in Frisco are trained to provide approved accommodations for students at UNT at Frisco.

Financial Aid & Scholarships

UNT Frisco students with questions about financial aid or scholarships can speak with UNT One Stop staff in Frisco. Visit the Welcome Desk on campus to connect with our One Stop staff or call 940-565-2302.

Students may also visit the ScrappySays website to find answers to commonly asked questions, book a virtual appointment or submit questions directly to the Financial Aid & Scholarships team.

Food Pantry

A small food pantry is available for UNT Frisco students dealing with food insecurity. Confidentiality is maintained for students visiting the food pantry. Students may visit the UNT at Frisco Welcome Desk or call 972-668-7100 for more information about the service. For more information about other food resources, visit the Division of Student Affairs website.

Frisco Fitness Center

The Frisco Fitness Center is located on the first floor of Frisco Landing and is managed by UNT's Recreational Sports. It provides fitness equipment and programming to meet the needs of the students, faculty, and staff at Frisco Landing. For more information about open hours, membership, policies and equipment, visit the Frisco Fitness Center page on the Rec Sports website.

Gupta Career Center

The Gupta Career Center offers students the opportunity to learn, network and engage with UNT's Career Coaches and our industry partners and corporate executives. The center also gives students access to a wide range of services, including one-on-one career advising, major and career exploration, career assessment, resume/cover letter reviews, mock interviews, and career and professional development workshops.

The UNT Frisco Events Calendar includes information about the Career Center's upcoming events.

Students may schedule career advising appointments through their student account on Navigate. For additional questions, email Frisco.CareerReady@unt.edu.

Health and Wellness

The UNT Student Health and Wellness Center offers activities and workshops on the UNT at Frisco campus, including Fall Flu Shot Clinics, stress-reduction activities, and dietitian consultations.

Students can schedule virtual appointments through the Student Health and Wellness Center's Health Center Patient portal.

A 24/7 Nurse Hotline is available to answer questions on the treatment for or severity of medical issues at 214-266-8777.

For medical emergencies, please call 9-1-1.

Library

The Frisco Landing Library provides resources, services, and spaces in an open library environment that promotes collaboration and supports student learning. Available materials, services and technology include books, music and media; an audio and video recording studio; research assistance; and the Spark makerspace. See the UNT Library website for more information.

On- and Off-Site Opportunities

The UNT Frisco Events Calendar includes workshops, activities and volunteer opportunities offered on the UNT at Frisco campus and in the Frisco community. Past events have been offered by Student Legal Services, the Student Money Management Center, the Gupta Career Center, Off-Campus Student Services, and the Student Health and Wellness Center.

Student Organizations

Students may search the OrgSync website for the keyword "Frisco" to find student organizations currently available at UNT at Frisco.

To create new student organizations with like-minded peers who share common goals, students should contact UNTFrisco@unt.edu.

Tutoring and Academic Success

Academic coaches are available at UNT at Frisco to assist with study, test and note-taking tips; time management; test anxiety; and more. Students may use Navigate to set up either a virtual meeting or a face-to-face meeting with an academic coach at Frisco Landing.

The Learning Center offers tutoring sessions, both in person at Frisco Landing and virtually. Available services include one-on-one tutoring, drop-in tutoring, and virtual supplemental instruction sessions.

Students may also schedule in-person or virtual appointments with the UNT Writing Center for assistance with grammar, punctuation and citations, as well as theses and dissertations.

Accreditation

**As a branch campus of UNT, the accreditation status of UNT at Frisco is dependent on the continued accreditation of University of North Texas. University of North Texas is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, masters, and doctorate degrees. University of North Texas also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of the University of North Texas may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).*

Honors College

Main College Office
Sage Hall, Room 320

Mailing address:
1155 Union Circle #310529
Denton, TX 76203-5017
940-565-3305
E-mail: honorscollege@unt.edu
Web site: honors.unt.edu

Glênisson de Oliveira, Dean
Sean Ryan, Associate Dean for the Honors College
James Duban, Associate Dean for Research and National Scholarships

Faculty

The Honors College is dedicated to enriching the undergraduate academic experience for talented, motivated and well-prepared students. Honors College membership is open to all qualified students, whatever their major. Upon joining the Honors College, students find that they are part of an exciting community of talented scholars pursuing academic and intellectual growth. The goal of the Honors College is to help these students build an excellent foundation, via research-based curricula, thereby preparing them to study at the graduate level, establish a career and meet the demands of responsible citizenship.

The benefits of Honors College membership

Honors faculty and staff work to design, implement and support learning opportunities for students, both in and beyond the classroom. The primary benefit of Honors College membership is the right to enroll in honors classes, which are taught by faculty members with a strong commitment to undergraduate education. Honors classes offer a supportive environment conducive to intellectual growth. The small enrollment of honors classes opens up opportunities for active participation in learning, including projects, presentations and class discussions. In addition, many honors classes can be substituted for non-honors classes in the University Core Curriculum. Honors students also enjoy priority registration each semester.

Undergraduate research

Many honors students elect to participate in undergraduate research. Students may take courses to learn about research, develop their research projects, and write an honors thesis, all under the guidance of a faculty mentor in their major. Honors research courses include HNRS 1500 - Introduction to Research: An Interdisciplinary Perspective, HNRS 3500 - Honors Thesis Proposal Development, XXXX 3996 – Honors Mentored Research and XXXX 4951-Honors College Capstone Thesis. Students have opportunities to present their research at regional and national conferences and may submit their work for publication in the North Texas Journal of Undergraduate Research or in other scholarly journals.

Student Life programming

Honors College programming is built around four key pillars, with 40-plus events designed specifically for Honors College students each semester. Through programs focused on Global Citizenship and Social Responsibility, students explore their roles as changemakers in local and global contexts. Leadership Development opportunities empower students to grow as ethical, reflective leaders on campus and beyond. Our emphasis on Community Connection fosters meaningful relationships and a strong sense of belonging, while Creative Entrepreneurship encourages innovative thinking and problem-solving across disciplines.

Honors College priority housing

The Honors College is proud to offer two residence halls for Honors students. Rawlins Hall is available to freshman Honors students. Honors Hall is available for upperclassmen. Honors College students registering for housing are encouraged to select Rawlins Hall or Honors Hall. Both Honors residence halls feature a faculty-in-residence.

Honors College student lounge

Honors College students have exclusive access to the lounge space in Sage 340. Students have a number of benefits in the lounge: free printing, a fully stocked Keurig coffee bar, a lending library with books and board games, a TV, and whiteboards. The Student Lounge is also the location for many Honors College Programming Council (HCPC) programs.

Honors College membership and participation

Honors College membership is open to students completing their first Bachelor's degree and is compatible with every undergraduate major and program at UNT. Membership in the Honors College is secondary to membership in the college of the student's major, and the program's flexibility allows students to decide each semester on the combination of honors, non-honors and major classes that best suits their needs.

Eligibility for membership

Freshman, transfer and continuing students are invited to apply for membership to the Honors College. All applicants submit a response to a writing prompt and information on their academic, professional, and extracurricular interests. The Honors College Admissions Committee will have access to students' academic records submitted to UNT. Applications are reviewed holistically. Interested students can review application deadlines and complete the application at honors.unt.edu.

Programs for participation and recognition in the Honors College

Honors College Scholar Award

The Honors College Scholar Award requires students to complete 18 honors credit hours with a cumulative GPA of at least 3.25. Honors credit hours can be earned through a variety of academic experiences, including Honors courses, Honors Contracts, Mentored Research, Experiential learning activities, graduate level coursework, Study Abroad, and writing an Honors Thesis project. Students who complete the Honors College Scholar Award receive the Honors College medallion and recognition on their final transcript.

Advanced Honors College Scholar Award (transfer students only)

Designed specifically for transfer students matriculating to UNT with a substantial number of credit hours, the Advanced Honors College Scholar Award requires these students to complete 12 hours of Honors credit, 3 hours of which must be either an Honors College Thesis Project (or department equivalent), 3996 Mentored Research experience, UNT-approved Study Abroad, HNRS 4200Z: Experiential Learning Seminar (internships, practicums or student teaching), or completion of HNRS 4000: Global Perspectives Capstone course. The student must maintain a cumulative GPA of at least 3.25. Students who complete the Advanced Honors College Scholar Award receive the Honors College medallion and recognition on their final transcript.

Distinguished Honors College Scholar Award

The highest recognition available to students through the Honors College is the Distinguished Honors College Scholar Award. For this award, the student must complete 21 honors credits that include an Honors Thesis Project. The remaining Honors credits can be earned through Honors courses, Honors Contracts, Mentored Research, Experiential learning activities, graduate level coursework, and Study Abroad. Students must also maintain a cumulative GPA of at least 3.25. Students who complete the Distinguished Honors College Scholar Award receive the Honors College medallion and recognition on their final transcript.

Honors College Community Impact Recognition

This award recognizes students for their development as scholars, citizens, and leaders while at UNT and celebrates the impact they have on our university community. Students earn points through their involvement in the Honors College and are awarded a graduation cord upon completion. Program requirements are posted on the Honors College Canvas page.

Honors College Engagement Recognition

This recognition is for students who are particularly active in attending Honors College events and/or campus activities. These students can receive the Honors College Engagement Recognition in addition to an Honors College award. Program requirements are posted at honors.unt.edu.

If you have any questions regarding the Honors College Distinctions or what catalog year you fall under, please contact Honors College Academic Advising.

Honors courses

Specific objectives have been adopted for honors courses, including the following.

1. Honors courses emphasize development of analytical and evaluative skills through readings from primary sources, journal articles and other supplementary materials.
2. Honors courses encourage students to engage in high-level thinking and learning through activities such as intensive discussion; writing in small, collaborative learning settings; and research papers and projects.
3. Honors courses promote independent thinking by making students accountable for important aspects of their learning.
4. Honors courses place material in a conceptual context that illustrates the importance of that material and its relationship to other knowledge.
5. Honors courses provide enhanced opportunities for students to develop research skills and produce independent, original research or creative products as part of the course requirements.

Honors Courses that meet University Core Curriculum requirements

Communication, 6 hours

- ENGL 1311 - Honors First-Year Writing I
- ENGL 1321 - Honors First-Year Writing II
- TECM 1700 - Introduction to Professional, Science, and Technical Writing (special section)
- TECM 2700 - Technical Writing (special section)

Mathematics, 3 hours

- MATH 1710 - Calculus I (special section)

Life and physical sciences, 6 hours

- BIOL 1132 - Environmental Science (special section)
- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 1722 - Honors Biology for Science Majors II (special section)
- CHEM 1412 - General Chemistry I for the Honors College or
- CHEM 1422 - General Chemistry II for the Honors College
- NUTR 2460 - Introduction to Nutrition Science (special section)

American history, 6 hours

- HIST 2675 - Honors United States History to 1865
- HIST 2685 - Honors United States History Since 1865

Government/political science, 6 hours

- PSCI 2315 - Honors US Political Behavior and Policy
- PSCI 2316 - Honors U.S. and Texas Constitutions and Institutions

Creative arts, 3 hours

- ART 1301 - Honors Art Appreciation
- MUMH 2040 - Music Appreciation (special section)
- MUMH 2050 - Sounds and Cinema (special section)

Language, philosophy and culture, 3 hours

- ENGL 2331 - World Literature (special section)
- ENGL 3450 - Short Story (special section)
- PHIL 1050 - Introduction to Philosophy (special sections)
- PHIL 2070 - World Religions (special sections)
- PHIL 2600 - Ethics in Science (special sections)
- LING 2050 - The Language of Now: Pop Culture, Technology and Society

Social and behavioral sciences, 3 hours

- HDFS 1013 - Human Development (special section)
- PSYC 1630 - General Psychology I (special section)
- PSYC 1650 - Biological Psychology (special section)
- SOCI 1510 - Introduction to Sociology (special section)

Component area option, 6 hours

- ART 1301 - Honors Art Appreciation
- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 1722 - Honors Biology for Science Majors II
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1422 - General Chemistry II for the Honors College
- COMM 1440 - Honors Classical Argument
- ENGL 1311 - Honors First-Year Writing I
- ENGL 1321 - Honors First-Year Writing II
- HIST 2675 - Honors United States History to 1865
- HIST 2685 - Honors United States History Since 1865
- MATH 1720 - Calculus II (special section)
- MUMH 1610 - Music as Communication (special section)
- MUMH 2040 - Music Appreciation (special section)
- NUTR 2460 - Introduction to Nutrition Science (special section)
- PHIL 1050 - Introduction to Philosophy (special section)
- PHIL 2070 - World Religions (special section)
- PHIL 2600 - Ethics in Science (special section)
- SOCI 1510 - Introduction to Sociology (special section)
- TECM 1700 - Introduction to Professional, Science, and Technical Writing (special section)
- TECM 2700 - Technical Writing (special section)

International Affairs

Main Office
Marquis Hall, Room 105

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2197
E-mail: internationalaffairs@unt.edu
Web site: international.unt.edu/

Lauren Jacobsen-Bridges, Vice Provost for International Affairs

International Affairs

International Affairs is a guide and champion for campus internationalization at the University of North Texas. It is our mission to support the university's global endeavors and international initiatives. We provide expertise and assistance to faculty, staff, students and administrators in support of expanding the university's global standing.

International Affairs supports international teaching, research and service. We strive to enrich campus life by welcoming international students and scholars, cultivating global citizens among students, and fostering global connections between UNT and institutions and communities around the world. International Affairs works collaboratively across UNT System to foster UNT's position as a gateway to the globe.

All units are located in Marquis Hall (international.unt.edu).

International Affairs Areas

Global Engagement

Marquis Hall, Room 105

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2197

Email: GlobalPartnerships@unt.edu, Fulbright@unt.edu
Web site: international.unt.edu

Global Engagement supports UNT's global engagement activities and international initiatives. Global Engagement advises colleges on the development of global programs, manages UNT's international agreements and contracts, and oversees data and information about UNT's global engagement activities. Global Engagement acts as steward for campus internationalization by encouraging global scholarship, managing Fulbright and intramural grants, and promoting other global opportunities for faculty and students.

International Programs and Communication

Marquis Hall, Room 105

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2197

E-mail: internationalaffairs@unt.edu
Web site: international.unt.edu/programs-and-events/index.html

International Programs and Communication provides UNT students opportunities for cross-cultural learning and engagement via a full schedule of international events and activities, provides international student support programs to help new students adjust to life in the U.S., and manages and awards International Affairs scholarships and grants.

Intensive English Language Institute

Marquis Hall, Room 223

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2003

E-mail: ieli@unt.edu
Web site: international.unt.edu/ieli

The **Intensive English Language Institute, established in 1977,** is the longest-standing program of its kind in North Texas and one of the most prestigious programs for learning academic English in the United States. In addition, IELI conducts the International Teaching Assistants testing and training program for UNT.

International Recruitment Office

Marquis Hall, Room 209

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-369-7624

E-mail: study@unt.edu
Web site: international.unt.edu/international-students/index.html

International Recruitment recruits well-qualified international students to UNT colleges and schools. Its core activities include converting international prospects to applicants via digital outreach and recruitment at feeder institutions both abroad and in the U.S. Office staff work regularly with high school counselors, international faculty, U.S. higher education advisors and UNT alumni.

International Student and Scholar Services

Marquis Hall, Room 110

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2195
Fax: 940-565-4145

E-mail: internationaladvising@unt.edu
Web site: international.unt.edu/international-scholar-services/index.html

International Student and Scholar Services provides culturally sensitive immigration guidance and support to international students and scholars engaged in academic activities at the University of North Texas System. The office serves as the primary campus and system resource on immigration matters pertaining to all non-immigrant visa types.

Study Abroad Office

Marquis Hall, 145

Mailing address:
1155 Union Circle #311067
Denton, TX 76203-5017
940-565-2207

E-mail: studyabroad@unt.edu
Web site: studyabroad.unt.edu

The **Study Abroad Office** coordinates affiliate, exchange and faculty led programs for UNT students in collaboration with the university's colleges and schools. The office works to create programs that inspire global citizenship, enhance curriculum and support the academic, career and personal goals of UNT students from all majors and backgrounds. The office also serves as a U.S. Passport Acceptance Facility and is open to the UNT and North Texas communities.

International Student Health Insurance Requirement

Since 1982, UNT has required F & J international students to have medical insurance. Consequently, international students are automatically charged a student health insurance fee to cover the premium for the UNT-sponsored health plan each semester after registration.

There are only three instances when a student may receive a waiver from the UNT-sponsored health care plan:

1. an international student has a government-sponsored plan (these waivers are processed in the Office of International Student and Scholar Services,
2. an international student has insurance through a U.S. employer group policy that meets the waiver requirements, or

3. an international student is a dependent on a parent or relative's U.S. employer group policy that meets the waiver requirements.

Students will be required to go to https://unt.myahpcare.com to waive out of the Plan, underwritten by United Healthcare Student Resources. For students requesting an insurance waiver, supplemental insurance to cover medical evacuation and repatriation will also be required. This coverage may also be purchased from United Healthcare. A waiver will not be granted until proof of acceptable insurance and medical evacuation and repatriation coverage is provided. Waiver requests are processed up until the official 12th class day.

Questions about the UNT-sponsored health plan or about a waiver from the plan may be addressed to SHWCinsurance@unt.edu.

Tuberculosis (TB) screening requirement

UNT requires all incoming international and IELI students from high-risk tubercular disease countries to be screened for TB. These students must be screened and, if required, tested for TB their first term of study on the UNT campus or provide documentation of a previous TB test with results done in the United States within the past six months. Failure to complete the TB screening requirement will prevent students from registering for future semesters. For more information, please read the TB screening section at studentaffairs.unt.edu/student-health-and-wellness-center/services/international-students.

G. Brint Ryan College of Business

Undergraduate Programs Office
Business Leadership Building, Room 110

Mailing address:
1155 Union Circle #311160
Denton, TX 76203-5017
940-565-2110
Web site: www.cob.unt.edu

Marilyn Wiley, Dean
Terry Pohlen, Senior Associate Dean
John Puthenpurackal, Academic Associate Dean
Tracy Dietz, Academic Associate Dean for Assessment and Academic Reporting

Faculty

Mission

To prepare global business leaders and scholars in an intellectually stimulating and engaging community through preeminent teaching, research and service.

Vision

To be an agile institution that transcends national and international standards of excellence in research and education.

Programs of study

The college offers programs leading to the Bachelor of Business Administration (BBA) or Bachelor of Science (BS). A minimum of 50 percent of the business credit hours required for any undergraduate business degree must be completed at UNT. BBA and BS degree programs are offered through the following departments:

G. Brint Ryan College of Business

- BBA — Business Integrated Studies
- BBA — Business Integrated Studies with grad track option leading to Business Administration, MBA
- BBA — Business Integrated Studies with grad track option leading to Management, MBA
- BS — General Business
- BS — General Business with grad track option leading to Business Administration, MBA
- BS — General Business with grad track option leading to Management, MBA

Department of Accounting

- BBA — Accounting
- BS — Accounting (BS/MS — dual-degree program)

Department of Finance, Insurance, Real Estate and Law

- BBA — Economics
- BBA — Economics with grad track option leading to Business Administration, MBA
- BBA — Economics with grad track option leading to Management, MBA
- BBA — Finance
- BBA — Finance with a grad track option Business Administration, MBA
- BBA — Finance with a grad track option leading to Finance, MS
- BBA — Finance with a grad track option leading to Management, MBA
- BBA — Financial Planning
- BBA — Financial Planning with grad track option leading to Business Administration, MBA
- BBA — Financial Planning with grad track option leading to Management, MBA
- BBA — Real Estate
- BBA — Real Estate with a grad track option leading to Business Administration, MBA
- BBA — Real Estate with a grad track option leading to Management, MBA
- BBA — Real Estate with a concentration in Residential Property Management
- BBA — Real Estate with a concentration in Residential Property Management with grad track option leading to Business Administration, MBA
- BBA — Real Estate with a concentration in Residential Property Management with grad track option leading to Management, MBA
- BBA — Risk Management and Insurance
- BBA — Risk Management and Insurance with grad track option leading to Business Administration, MBA
- BBA — Risk Management and Insurance with grad track option leading to Management, MBA

Department of Information Technology and Decision Sciences

- BBA — Business Analytics
- BBA — Business Analytics with grad track option leading to Business Analytics, MS
- BS — Business Computer Information Systems
- BS — Business Computer Information Systems with grad track leading to Information Systems and Technologies, MS
- BS — Applied Project Design and Analysis
- BS — Project Design and Analysis

Department of Management

- BBA — Entrepreneurship and Enterprise Management
- BBA — Entrepreneurship and Enterprise Management with grad track option leading to Business Administration, MBA
- BBA — Entrepreneurship and Enterprise Management with grad track option leading to Management, MBA
- BBA — Human Resource Management
- BBA — Human Resource Management with grad track option leading to Business Administration, MBA
- BBA — Human Resource Management with grad track option leading to Management, MBA
- BBA — Management
- BBA — Management with grad track option leading to Business Administration, MBA
- BBA — Management with grad track option leading to Management, MBA
- BBA — Sport Entertainment Management
- BBA — Sport Entertainment Management with grad track option leading to Sport Entertainment Management, MBA

Department of Marketing

- BBA — Marketing
- BBA — Marketing with grad track option leading to Business Administration, MBA
- BBA — Marketing with grad track option leading to Management, MBA
- BBA — Marketing with a concentration in Professional Selling
- BBA — Marketing with a concentration in Professional Selling with grad track option leading to Business Administration, MBA
- BBA — Marketing with a concentration in Professional Selling with grad track option leading to Management, MBA

Department of Supply Chain Management

- BS — Supply Chain Management
- BS — Industrial Distribution

School of Merchandising and Hospitality Management

The G. Brint Ryan College of Business houses the School of Merchandising and Hospitality Management and its programs.

Accreditation

The college is accredited by the AACSB International—The Association to Advance Collegiate Schools of Business (777 South Harbour Island Blvd., Suite 750, Tampa, FL 33602; 813-769-6500) at both the undergraduate and graduate levels.

G. Brint Ryan College of Business Degree Requirements

Degree requirements and the University Core Curriculum

The University of North Texas core curriculum is listed in the University Core Curriculum requirements in the Academic Policies and Procedures section of this catalog. Each program within the G. Brint Ryan College of Business requires specific courses to satisfy particular degree requirements (see Bachelor of Business Administration and specific BS and BBA degree sections of this catalog). Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree requirements and core requirements should consult an academic advisor.

G. Brint Ryan College of Business tiered academic progression plan and academic standards

All students pursuing a BBA or BS degree at RCOB must follow the tiered academic progression plan and conform to the academic standards outlined below. All students pursuing a BBA or BS degree at RCOB must follow the tiered academic progression plan and conform to the academic standards outlined below. Exceptions are given to students pursuing BS Project Design and Analysis, BS Applied Project Design and Analysis, BS Industrial Distribution, and students in the School of Merchandising and Hospitality Management (SMHM). For students in SMHM, please see the requirements under the School of Merchandising and Hospitality Management Requirements.

Undergraduate tiered academic progression plan and admission policy

Tier One: Level One Pre-business (PBUS)

1. All students entering the G. Brint Ryan College of Business, whether for a BBA or BS degree, are admitted under pre-business (PBUS). This designation will include all new, transfer and continuing students who have not yet declared an official Ryan College of Business major. In addition to the requirements listed below, all pre-business students must have a 2.0 UNT GPA to move from Tier One: Level 1 to Tier One: Level 2 and all pre-business prerequisite courses require a minimum grade of C.
2. A PBUS student must have the following:
    a) Completion of three courses from the following quantitative pre-business prerequisite courses: college-level math, ACCT 2010, ACCT 2020, DSCI 2710, ECON 1100, ECON 1110;
    b) Earn a minimum of 2.66 GPA (example of two Bs and one C) in the three courses completed under (a) above; and
    c) It is recommended that BUSI 1200 be completed (with a required C or higher) prior to progressing to Tier One: Level 2.
3. Once the above eligibility requirements are met, students must meet with an academic advisor to be changed officially to a Business Undergraduate (BUND) student (Level Two).
4. Students who are unable to progress to BUND status at the completion of 45 UNT attempted hours (this includes all attempts of all UNT courses) are subject to dismissal from the Ryan College of Business. Advisors will consult with each student prior to and at the time of dismissal and will refer to resources and other UNT programs which can better serve the students' needs.
5. UNT continuing students changing to PBUS from another UNT major, and students transferring from another institution with 45 or more hours, must progress to BUND within two semesters or will be subject to dismissal from the Ryan College of Business.

Tier One: Level Two Business Undergraduate (BUND)

1. BUND students must meet the following requirements to progress to Tier Two (Declared BBA/BS major).
    a) Completion of at least 45 semester hours;
    b) Completion of the following pre-business and communication courses with a minimum grade of C and a pre-business GPA of 2.7 on these nine courses (or equivalents): ACCT 2010 and ACCT 2020; BCIS 2610; DSCI 2710; ECON 1100 and ECON 1110; ENGL 1310; ENGL 1320 or TECM 2700 (TECM 2700 is required for BS/MS accounting); and MATH 1190 (preferred) or MATH 1710.
    c) Completion of BUSI 1200 with a C or higher: and
    d) Possess a 2.0 UNT GPA to file a degree plan for BBA and BS degrees in the G. Brint Ryan College of Business
2. Once the above eligibility requirements are met, BUND students must meet with an academic advisor to file for an official degree plan and move to Tier Two.

Tier One: Level 2 PBUS and BUND students are restricted to lower-level (1000/2000) business courses.

Tier Two: Declared BBA/BS major with a chosen professional field in Business

1. Students who meet all requirements for Tier Two receive clearance into upper level (3000/4000) business courses (business foundation and professional field) after meeting with an advisor to file for the official degree plan (BBA or BS with declared professional field).
2. Students in Tier Two are strongly encouraged to meet with their departmental advisor.
3. Tier Two students must meet all degree and graduation requirements as outlined under G. Brint Ryan College of Business Academic Standards and UNT.
4. Students must meet all prerequisites for upper-level business courses as stated in the current catalog.
5. Tier Two students must apply for graduation by the deadline posted in the Academic Calendar.

G. Brint Ryan College of Business academic standards

1. Students must complete the tiered academic progression plan as outlined above.
2. The G. Brint Ryan College of Business will not grant upper-division (3000-4000 level) degree credit for any transfer course taken at the lower division. Upper-division course work transferred from a regionally accredited four-year institution will be evaluated on an individual course basis to determine applicable degree credit. As a rule, upper division coursework taken at non-AACSB accredited institutions cannot be applied to satisfy upper-division business course requirements.
3. A grade of C or above must be earned in each business foundation course and each professional field or supporting field course completed in residence or transferred to UNT.

4. Degree progress and major dismissal:
    - Students who have been accepted to a business degree program must maintain satisfactory progress. Declared business majors are subject to dismissal from a business degree program and may not be permitted to enroll for additional courses in that major if they receive any combination of grades of D or F in two attempts of the same course in the professional field and supporting courses in their degree plan.
5. Academic requirements for graduation with a BBA or BS from the G. Brint Ryan College of Business include:
    - A minimum of 2.0 UNT cumulative GPA (all courses completed at UNT); and
    - A minimum 2.0 overall GPA (combined UNT and transfer GPA).
6. Individual departments may have higher graduation and/or entrance standards (see departmental sections of catalog).

Course listings

Individual courses of instruction are subject to change or withdrawal at any time and may not be offered each term/semester or every year. Any course may be withdrawn from current offers if the number of registrants is too small to justify conducting it.

Enrollment in advanced courses requires successful completion of the pre-business requirements.

WARNING: It is the student's responsibility to meet all course prerequisites listed in the current catalog prior to enrollment in any course.

Courses numbered 4900-4910 are offered under limited circumstances to advanced undergraduate students who are capable of developing a problem independently. These courses require approval by the department chair. A project is chosen by the student and instructor, developed through conferences and approved activities under the direction of the instructor and may require a term paper. These courses are not open to graduate students.

All Courses of Instruction are located in courses descriptions.

Academic advising

Undergraduate academic advising is available through the RCOB Undergraduate Programs Office. Through a collaborative relationship, RCOB advising staff assists students through the tiered progression process. Advisors support students in developing and accomplishing personal educational goals as well as advise on matters relating to selecting degree programs and courses, preparing degree plans, obtaining advising clearance forms, changing majors, and understanding policies and procedures. Departmental advisors are available to serve the needs of RCOB students in Tier II status who have declared a specific major within RCOB on matters pertaining to professional and supporting field courses required for a specific RCOB degree as well as career development.

Student Services and Resources

RCOB Undergraduate Programs Office

The RCOB Undergraduate Programs Office serves undergraduate students as they progress toward timely degree completion - from the time they are admitted to the RCOB to graduation. Our services include undergraduate academic advising, student affairs and services, student engagement, professional development services, and prospective student services. Our services are available throughout the year in the Business Leadership Building, Room 110.

RCOB academic advisors assist students through the tiered progression process, support students in developing and accomplishing personal educational goals as well as advise on matters relating to selecting degree programs and courses, preparing degree plans, obtaining advising clearance forms, changing majors, and understanding policies and procedures. We also review and apply transfer credits and monitor graduation requirements. Our office serves as the generalists for each degree in the undergraduate curriculum and has advisors trained to work uniquely with students. Once a student is declared in a major, they should also connect with a departmental advisor. Undergraduate departmental advisors in each department must be consulted concerning any changes in the professional or supporting field requirements and offer expertise in professional and career growth and development.

While RCOB advising staff and departmental advisors offer academic advice and assistance to students, the students are expected to take responsibility for their education and personal development. Students must know and abide by the academic and disciplinary policies given in the undergraduate catalog. Students must also know and meet the requirements of their selected degree program, including the University Core Curriculum; the RCOB tiered academic progression plan and academic standards outlined above; pre-business, business foundation, professional development requirements; professional field and supporting field requirements for specific RCOB BBA or BS degrees (see Bachelor of Business Administration and specific BS and BBA degree sections of this catalog). Students must enroll in courses appropriate to the program, meet prerequisites and take courses in the proper sequence to ensure orderly and timely degree progression. Students should seek advice from college or departmental advisors in their major about degree requirements and other college and university policies when necessary. Students must also know and adhere to all college and university deadlines. Students will not be relieved of their responsibility to know the policies, deadlines and business practices of the university on the grounds that they were not told. If students have questions regarding these materials, it is the university's expectation that the student will consult their academic advisor for guidance and resolution.

Our student affairs and services team assists students who may encounter difficulties during their academic career. This may include instances where extenuating circumstances lead them to request adding a course after registration, requesting a late drop or a backdated withdrawal from a term, or when students may experience certain insecurities that are prohibiting them from being successful. These are reviewed internally by our team and may require additional review by a university committee.

Engagement outside of the classroom is vital to student success and is key in gaining soft skills that are necessary for career success. We offer various programs, including 26 business-focused student organizations, our Professional Leadership Program, Student Ambassadors, the Distinguished Speaker Series, and a peer mentor program for first-year students.

Professional development and career-readiness is a major focus for our college. As part of their degree program, all business students are required to complete professional development courses that cover topics such as business communication, career/major exploration, resume writing, interviewing, networking and Excel certification. Business students have an array of opportunities to attend events focused on career preparation. Our in-house Career Center offers dozens of workshops, webinars and trainings to assist students in their journey toward a successful career.

Our recruitment team works collaboratively with the university's Admissions Teams to reach out and provide information assistance to prospective business students to attend UNT. They oversee outreach initiatives including tours of the Business Leadership Building, College Day programming and Business Leadership Academy. They build partnerships with community colleges and high schools to make the transition to UNT a seamless one. Prospective students are invited to meet with our recruiter to learn more about our programs and requirements.

G. Brint Ryan College of Business Information Technology Services

The Business Information Technology Services department manages Business Leadership Building IT infrastructure and supports the IT needs of the G. Brint Ryan College of Business students, faculty, and staff, providing access to desktop computing, research computation space, and VMware-based remote learning environment.

The G. Brint Ryan College of Business has two types of virtual labs for students:

VMware Virtualization access is designed for the specialized business students that can be accessed anywhere at any time. The G. Brint Ryan College of Business specialized courses include course-related software for such courses as Introduction to

Database Applications, Distributed Systems, and Teleprocessing; Data Communications and Networking; Information Resource Management; Decision Support Systems; Visual Display; and Fundamentals of Information Technology Security. Professors can schedule laptops that are delivered and enabled for wireless to support in-class tests and quizzes to standardize the experience. Information for the VMware Virtualization system can be found at RCoB Virtual Lab

General Student course software is accessed through the Campus Citrix Streaming Applications and Virtual Desktop service. Information for the Citrix Streaming and Virtual Desktop system can be found at: UNT Virtual Lab.

The Business Leadership Building has seven team rooms scheduled through a QR code on the door and the library reservation system. Several public access charging stations are provided on the ground level of the Business Leadership Building for walk-up device charging and personal laptop use.

The Business Information Technology Services department of the G. Brint Ryan College of Business is housed in the Business Leadership Building. It comprises the Senior Associate Dean, an IT manager, a desktop/computer lab manager, a desktop/computer lab technician, two system administrators, and two web developers. A technical support team of part-time student assistants aids the full-time staff in software installations, troubleshooting and working with faculty and staff when problems or questions arise concerning software and hardware.

All physical desktops, printing, and short or long-term laptop checkout needs should be directed to the Willis Library.

Virtual Labs

Citrix Virtual Lab Remote access to applications is provided by our UNT online virtual lab powered by Citrix. Find this lab here: https://myuntlab.unt.edu/

Beta Gamma Sigma

This national honorary society of business administration students was founded in 1913. The UNT chapter was established in 1962. The primary objective of Beta Gamma Sigma is to encourage and honor high academic achievement by students of business and management through chapters in all American Assembly of Collegiate Schools of Business accredited schools. Membership is a signal honor and is limited to outstanding students who show promise of success in the field of business and who rank in the upper 10 percent of their junior, senior or graduate class.

Majors

Bachelor of Business Administration

The following requirements must be satisfied for a Bachelor of Business Administration.

Common BBA degree requirements

G. Brint Ryan College of Business (RCOB) offers a BBA degree in multiple professional fields. A term BBA degree program is used here to refer to specific BBA professional fields. This section describes degree requirements that are common for all BBA degree programs. Professional Field and Supporting Field course requirements are outlined in individual BBA degree program sections.

Admission to program and tiered progression

All students entering the G. Brint Ryan College of Business for a BBA degree are admitted under the tiered academic progression plan and admission policy. Detailed information regarding this plan is described in the Tiered Progression Plan of the G. Brint Ryan College of Business. For academic standards and degree progression see the G. Brint Ryan College of Business.

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog, as well as the Bachelor's degree requirements outlined in the G. Brint Ryan College of Business.

University core and BBA communication requirements

University Core Curriculum requirements, 42 hours

Students must fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Academics section of this catalog.

Some courses required for the BBA degree may also satisfy a requirement of the University Core Curriculum. A student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the BBA degree.

BBA communication requirements, 9 hours*

Students pursuing a BBA degree must complete one of the following combinations of courses as part of their University Core requirement. This combination can be used to fulfill University Core communication and University Core option requirements. Students choosing to fulfill their University Core utilizing different courses are still required to complete one of the following combination of courses.

Combination A:

- ENGL 1310 - First-Year Writing I (with a grade of C or higher)
- ENGL 1320 - First-Year Writing II
  or
- TECM 2700 - Technical Writing (preferred), (with a grade of C or higher)
- COMM 1010 - Introduction to Communication

OR

Combination B:

- ENGL 1310 - First-Year Writing I (with a grade of C or higher)
- ENGL 1320 - First-Year Writing II (with a grade of C or higher)
- TECM 2700 - Technical Writing

BBA communication requirements, along with pre-business requirements courses constitute the basis for tiered progression in the BBA degree as outlined in the G. Brint Ryan College of Business Degree Requirements.

The first two courses in the BBA Communication requirements need to be completed with a grade C or higher before a student can declare to pursue a specific BBA degree program.

*Communication requirement courses can be used to fulfill University Core requirements.

Pre-business requirements, 21 hours**

Pre-business requirements, along with BBA communication requirements constitute the basis for tiered progression in the BBA degree as outlined in the G. Brint Ryan College of Business Degree Requirements.

The following courses must be completed with a grade of C or higher.

** Certain Pre-business courses can be used to fulfill university core requirements.

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- BCIS 2610 - Introduction to Computers in Business
- DSCI 2710 - Data Analysis with Spreadsheets **
- ECON 1100 - Principles of Microeconomics **
- ECON 1110 - Principles of Macroeconomics **
- MATH 1190 - Business Calculus **

  or
- MATH 1710 - Calculus I **

Professional Development requirements, 3 hours

A series of one-hour professional development courses, BUSI 1200, BUSI 3100 and BUSI 3200 (or alternative) are designed to help students with planning their business careers and building career-relevant skills.

*BUSI 1200 is required for progression to the Tier II status of tiered progression in the BBA and BS degree as outlined in the G. Brint Ryan College of Business requirements. BUSI 1200 is expected to be completed along with pre-business requirements.

**BUSI 3100 is a co-requisite with DSCI 3710 or DSCI 3870 and is expected to be completed along with business foundation requirements.

***The third professional development requirement can be satisfied by designated departmental professional development courses. See individual BBA degree program sections.

- BUSI 1200 - Professional Development I-Strategies for Business (with grade of C or higher)
- BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business (with grade of C or higher)
- BUSI 3200 - Professional Development III or departmental equivalent (with grade of C or higher)

Business foundation requirements, 24 hours

All students pursuing a BBA degree must complete the following business foundation courses.

- BCIS 3610 - Basic Information Systems
- BLAW 3430 - Legal and Ethical Environment of Business
- MGMT 3660 - Contemporary Business Writing and Presentation Skills
- MGMT 4940 - Strategic Management *
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- MGMT 3720 - Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice

Note

*MGMT 4940. (All business foundation courses and professional development requirements must be completed with a grade of C or better prior to taking this course [see lists above]; senior standing required; must be taken during the last term/semester of course work.)

Professional field and supporting field requirements, hours vary by BBA degree program

See individual BBA degree program sections. Professional and supporting field courses are expected to include the following common BBA requirement.

International requirement, 3 hours

International requirements for the degree can be fulfilled with one of the following courses (see individual BBA degree program sections to determine which of the following courses is required for your specific BBA degree program):

- BCIS 4730 - International Issues of Information Technology
- FINA 4500 - International Finance
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice
- SENM 4230 - International Brand Strategies in the Sport Entertainment Industry

Electives

See individual BBA degree program sections. Hours required for electives may vary based on course placement or University Core Requirement course selection. Some BBA degree programs may designate specific courses in place of elective hours (see BBA degree program sections). Students are responsible for completing the total minimum hours required for the degree. Only free electives may be taken under the pass/no pass option.

Other requirements

- A candidate for the degree must complete 33 hours of business administration courses in residence, of which 15 hours must be in the professional field of study.
- The G. Brint Ryan College of Business will not grant upper-division (3000–4000 level) degree credit for any transfer course taken at the lower division. Upper-division course work transferred from a regionally accredited four-year institution will be evaluated on an individual course basis to determine applicable degree credit.
- Registration for any junior- or senior-level course should be authorized by an advising clearance form or a formal degree plan.
- The applicability to a degree plan of all credits being transferred and/or awarded by placement or credit by examination must be determined in the dean's office either prior to enrollment at UNT or during the first term/semester of residence.
- It is the student's responsibility to meet all course prerequisites listed in the current catalog prior to enrollment in any course.
- A grade of C or above must be earned on each business administration foundation course completed in residence or transferred to UNT.
- Individual departments may have higher graduation and/or entrance standards (see departmental sections of catalog).
- An application for a formal degree plan must be submitted after 60 hours of course work (including the pre-business requirements) have been completed.
- Additional academic standards and requirements are outlined in the G. Brint Ryan College of Business.

Business Integrated Studies - International Track, BBA

A Bachelor of Business Administration in business integrated studies helps you develop the capabilities, knowledge and character needed for a successful business career.

The G. Brint Ryan College of Business offers a Bachelor of Business Administration degree with a professional field in business integrated studies and one with business integrated studies - international track. Students pursuing the professional field in business integrated studies only have the option to pursue a dual degree with the Burgundy School of Business in Dijon, France. See your advisor for more information.

This degree has a required supporting field in business administration. This degree is designed to prepare students for a variety of generalist positions in business and industry.

Degree requirements

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog, as well as the G. Brint Ryan College of Business Degree Requirements.

Additional requirements

- The program's 30 hours must encompass a total of at least three business subject areas
- 3 hours must be completed from the Creation of Goods and Services requirement: DSCI 3870, ECON 4140, LSCM 3960, OPSM 3830 or other approved Creation of Goods and Services courses
- 3 hours of any 3000/4000 level Business or Economics Course
- At least 15 of the 30 hrs must be completed at the 4000 level
- Students must provide proof of proficiency in a foreign language (through the level of 2050)
- Completion of a study abroad/international experience
- All prerequisites for the courses will be enforced
- In addition to the University Core Curriculum, Pre-Business, Business Foundation and Business Integrated Studies requirements, students must complete the following professional and supporting field courses for a BBA – Business Integrated Studies – International Track. A grade of C or better must be earned in each professional field and supporting course completed in residence or transferred to UNT.

Professional Field

Important: There are restrictions & limitations regarding how Business Subject Areas can be combined and courses selected. The following restrictions apply:

- If two subject areas contain the same course, that course may only be used for one subject area (no double-dipping of courses between Business Subject Areas)
- All courses must be chosen from within the same subject area (no mixing of course lists)
- There are no substitutions for the courses listed in the subject areas
- Some Subject Areas contain more than 12 hours. This will not increase the number of hours required for the degree, but will reduce the number of free electives.
- Approved Business Subject Areas (additional course options must be pre-approved by program or academic advisor).

International Business Subject Area 1

(Only for BBA-BIS International Track)

Choose 12 hours from the following course list:

- BCIS 4730 - International Issues of Information Technology
- BUSI 4700 - Topics in International Business Practices and Policies
- ECON 4850 - International Trade
- FINA 4500 - International Finance
- LSCM 4360 - Global Alliances and International Supply Chain Management
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice

Business Subject Area 2

Choose 12 hours from an approved Business Subject Area list:

Accounting

- ACCT 3110 - Intermediate Accounting I
- ACCT 3120 - Intermediate Accounting II

Complete two courses from:

- ACCT 3270 - Cost Accounting
- ACCT 4100 - Accounting Systems
- ACCT 4300 - Federal Income Taxation

Note 1: Accounting course prereq/coreq requirements will not be waived for Business Integrated Studies students, with the exception that these students will not be required to take ACCT 3405 as a prereq/coreq for ACCT 3120.

Note 2: Any Business Integrated Studies student who switches to a bachelor's in accounting must complete ACCT 3405 before completing the undergraduate accounting degree.

Business Information Systems

- BCIS 4610 - Analysis of Business Information Systems
- BCIS 4660 - Introduction to Data Warehousing
- BCIS 4690 - Information Technology Management
- BCIS 4740 - Administration and Policy in Information Security

Business Information Technology

- BCIS 3630 - Object-Oriented Programming for Business or BCIS 3620 - Mainframe Concepts
- BCIS 4620 - Introduction to Database Applications
- BCIS 4630 - Fundamentals of Information Technology Security or BCIS 4680 - Business Data Communications and Networking
- BCIS 4720 - Web-Based Information Technologies

Decision Sciences/Business Analytics

- DSCI 3870 - Management Science or DSCI 3710 if DSCI 3870 is used in the Business Foundation)
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making

Economics

- ECON 3550 - Intermediate Micro-Theory
- ECON 3560 - Intermediate Macro-Theory
- ECON 4140 - Managerial Economics
- ECON 4450 - Game Theory

Entrepreneurship

Required:

- MGMT 3850 - Foundations of Entrepreneurship

Choose 3 courses from the following list:

- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Entrepreneurial Growth and Strategy (prerequisite required)
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4860 - Organizational Design and Change

Finance

Choose 6 hours from the following:

- FINA 4200 - Investments
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions
- FINA 4400 - Financial Markets and Institutions
- FINA 4500 - International Finance
- Choose 6 hours from 3XXX - 4XXX level FINA courses

Financial Services

- FIPL 2770 - Show Me the Money - Lessons in Money Education
- FIPL 4210 - Securities Licensing
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4200 - Life and Health Insurance Planning (Fall) or
- FIPL 4500 - Estate Planning (Spring)

Human Resource Management

Required:

- MGMT 3860 - Human Resource Management

Choose 3 courses from the following list:

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4180 - Workplace Health and Safety
- MGMT 4300 - Talent Acquisition and Management
- MGMT 4470 - Leadership
- MGMT 4840 - Strategic Rewards and Performance Management

Legal Studies in Business

- BLAW 4450 - Corporation Law
- MGMT 3880 - Business Ethics and Social Responsibility
- BLAW 4770 - Real Estate Law and Contracts

Marketing

Choose 12 hours (4 courses) from the following:

- MKTG 3660 - Advertising Management
- MKTG 3700 - Marketing Metrics
- MKTG 4120 - Consumer Behavior
- MKTG 4280 - Global Marketing Issues and Practice
- MKTG 4600 - Retailing

Marketing - Professional Selling

- MKTG 4470 - Business-to-Business Marketing
- MKTG 4570 - Professional Selling Analytics
- MKTG 4670 - Advanced Professional Selling
- MKTG 4770 - Sales Force Design and Management

To be accepted into this new Business Content Area, we will still have to apply the same 3-step process (MyPlan Assessment, Personal Interview, and Degree Audit) currently followed to admit students into the Professional Selling program.

Operations and Supply Management

- OPSM 4820 - Manufacturing Planning and Control
- OPSM 4830 - Productivity and Quality Management
- OPSM 4880 - Management of Projects and Systems
- PRCH 4810 - Purchasing and Materials Management

Students choosing this track must also take OPSM 3830 Operations Management, as it is a prerequisite for OPSM 4820, OPSM 4830, and OPSM 4880. OPSM 3830 will fulfill the Creation of Goods and Services requirement.

Real Estate

Choose 12 hours from the following:

- BLAW 4770 - Real Estate Law and Contracts
- REAL 2100 - Principles of Real Estate
- REAL 4000 - Real Estate Finance
- REAL 4200 - Property Management
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Risk Management

Required:

- RMIN 2500 - Personal Risk Management or RMIN 3100 - Introduction to Risk Management and Insurance
- RMIN 4600 - Corporate Risk Management

Choose 2 courses from the following:

- FIPL 4200 - Life and Health Insurance Planning
- FIPL 4400 - Retirement Planning and Employee Benefits
- RMIN 4300 - Property/Liability Risk Management and Insurance
- RMIN 4310 - Insurance Company Operations
- RMIN 4800 - Internship
- RMIN 4900 - Special Problems

Residential Property Management

Choose 12 hours from the following:

- BLAW 4770 - Real Estate Law and Contracts
- BLAW 4790 - Property Management Law
- REAL 2100 - Principles of Real Estate
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management

Business Integrated Studies, BBA

A Bachelor of Business Administration in business integrated studies helps you develop the capabilities, knowledge and character needed for a successful business career.

The G. Brint Ryan College of Business offers a Bachelor of Business Administration degree with a professional field in business integrated studies and one with business integrated studies-international track. Students pursuing the professional field in business integrated studies only have the option to pursue a dual degree with the Burgundy School of Business in Dijon, France. See your advisor for more information.

This degree has a required supporting field in business administration. This degree is designed to prepare students for a variety of generalist positions in business and industry.

Degree requirements

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog, as well as the G. Brint Ryan College of Business Degree Requirements.

Additional requirements

- The program's hours must encompass a total of at least three business subject areas
- 3 hours must be completed from the creation of goods and services requirement (DSCI 3870, LSCM 3960, OPSM 3830, ECON 4140 or other approved creation of goods and services courses)
- 3 hours must be completed from international business (MKTG 4280, MGMT 4660, FINA 4500 or other approved international business courses)
- At least 15 of the 30 hours must be completed at the 4000 level
- In addition to the University Core Curriculum, Pre-Business, Business Foundation and Business Integrated Studies requirements, students must complete the following professional and supporting field courses for a BBA - Business Integrated Studies - International Track. A grade of C or better must be earned in each professional field and supporting course completed in residence or transferred to UNT

Professional field

- 12 hours from Business Subject Area 1 (courses must be pre-approved by program advisor)
- 12 hours from Business Subject Area 2 (courses must be pre-approved by program advisor)
- 6 hours of Business Integrated Study electives (3000/4000 level business courses)
- All prerequisites for the courses will be enforced
- Approved Business Subject Areas (additional course options must be pre-approved by program or academic advisor)

Some Subject Areas contain more than 12 hours. This will not increase the number of hours required for the degree, but will reduce the number of free electives

Accounting

- ACCT 3110 - Intermediate Accounting I
- ACCT 3120 - Intermediate Accounting II

Complete two courses from:

- ACCT 3270 - Cost Accounting
- ACCT 4100 - Accounting Systems
- ACCT 4300 - Federal Income Taxation

Note 1: Accounting course prereq/coreq requirements will not be waived for Business Integrated Studies students, with the exception that these students will not be required to take ACCT 3405 as a prereq/coreq for ACCT 3120.

Note 2: Any Business Integrated Studies student who switches to a bachelor's in accounting must complete ACCT 3405 before completing the undergraduate accounting degree.

Business Information Systems

- BCIS 4610 - Analysis of Business Information Systems
- BCIS 4660 - Introduction to Data Warehousing
- BCIS 4690 - Information Technology Management
- BCIS 4740 - Administration and Policy in Information Security

Business Information Technology

- BCIS 3630 - Object-Oriented Programming for Business or BCIS 3620 - Mainframe Concepts
- BCIS 4620 - Introduction to Database Applications
- BCIS 4630 - Fundamentals of Information Technology Security or BCIS 4680 - Business Data Communications and Networking
- BCIS 4720 - Web-Based Information Technologies

Decision Sciences/Business Analytics

- DSCI 3870 - Management Science (or DSCI 3710 if DSCI 3870 is used in the Business Foundation)
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making

Economics

- ECON 3550 - Intermediate Micro-Theory
- ECON 3560 - Intermediate Macro-Theory
- ECON 4140 - Managerial Economics
- ECON 4450 - Game Theory

Entrepreneurship

Required:

- MGMT 3850 - Foundations of Entrepreneurship

Choose 3 courses from the following list:

- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Entrepreneurial Growth and Strategy (pre-reqs required)
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4860 - Organizational Design and Change

Finance

Choose 6 hours from the following:

- FINA 4200 - Investments
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions
- FINA 4400 - Financial Markets and Institutions

- FINA 4500 - International Finance
- Choose 6 hours from 3XXX - 4XXX level FINA courses

Financial Services

- FIPL 2770 - Show Me the Money - Lessons in Money Education
- FIPL 4210 - Securities Licensing
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4200 - Life and Health Insurance Planning (Fall) or
- FIPL 4500 - Estate Planning (Spring)

Human Resource Management

Required:

- MGMT 3860 - Human Resource Management

Choose 3 courses from the following list:

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4180 - Workplace Health and Safety
- MGMT 4300 - Talent Acquisition and Management
- MGMT 4470 - Leadership
- MGMT 4840 - Strategic Rewards and Performance Management

Legal Studies in Business

- BLAW 4450 - Corporation Law
- MGMT 3880 - Business Ethics and Social Responsibility
- BLAW 4770 - Real Estate Law and Contracts

Marketing

Choose 12 hours (4 courses) from the following:

- MKTG 3660 - Advertising Management
- MKTG 3700 - Marketing Metrics
- MKTG 4120 - Consumer Behavior
- MKTG 4280 - Global Marketing Issues and Practice
- MKTG 4600 - Retailing

Marketing - Professional Selling

- MKTG 4470 - Business-to-Business Marketing
- MKTG 4570 - Professional Selling Analytics
- MKTG 4670 - Advanced Professional Selling
- MKTG 4770 - Sales Force Design and Management

Operations and Supply Management

- OPSM 4820 - Manufacturing Planning and Control
- OPSM 4830 - Productivity and Quality Management
- OPSM 4880 - Management of Projects and Systems
- PRCH 4810 - Purchasing and Materials Management

Students choosing this track must also take OPSM 3830 Operations Management, as it is a prerequisite for OPSM 4820, 4830, and 4880. OPSM 3830 will fulfill the Creation of Goods and Services requirement.

Real Estate

Choose 12 hours from the following:

- BLAW 4770 - Real Estate Law and Contracts
- REAL 2100 - Principles of Real Estate
- REAL 4000 - Real Estate Finance
- REAL 4200 - Property Management
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Risk Management

Required:

- RMIN 2500 - Personal Risk Management or RMIN 3100 - Introduction to Risk Management and Insurance
- RMIN 4600 - Corporate Risk Management

Choose 2 courses from the following:

- FIPL 4200 - Life and Health Insurance Planning
- FIPL 4400 - Retirement Planning and Employee Benefits
- RMIN 4300 - Property/Liability Risk Management and Insurance
- RMIN 4310 - Insurance Company Operations
- RMIN 4800 - Internship
- RMIN 4900 - Special Problems

Residential Property Management

Choose 12 hours from the following:

- BLAW 4770 - Real Estate Law and Contracts
- BLAW 4790 - Property Management Law
- REAL 2100 - Principles of Real Estate
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Elective	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BUSI 3200 - Professional Development III	1 hour
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	FINA 3770 - Finance	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
Business Integrated Study advanced elective	3 hours	Approved Creation of Goods and Services course	3 hours
Business Integrated Study advanced elective	3 hours	Business Content Area 1	3 hours
Business Content Area 1	3 hours	Business Content Area 2	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MGMT 3720 - Organizational Behavior	3 hours	MGMT 4940 - Strategic Management	3 hours
Approved International course	3 hours	Business Content Area 2	3 hours
Business Content Area 1	3 hours	Business Content Area 2	3 hours
Business Content Area 1	3 hours	Business Content Area 2	3 hours
Elective	3 hours		
Total	15 hours	Total	12 hours

General Business, BS

The BS in general business is a flexible program designed for students who may have earned an Associate's degree in an area outside of business but wish to complete a bachelor's degree in business. The BS in general business provides a solid foundation of essential business skills in the functional areas of business (accounting, finance, marketing and management) that can enhance previous areas of study.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the G. Brint Ryan College of Business requirements.

Major requirements

In addition to completion of the University Core Curriculum (42 hours), students must complete the following:

Pre-business requirements, 21 hours

Students must complete the following courses with a grade of C or higher:

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- BCIS 2610 - Introduction to Computers in Business
- DSCI 2710 - Data Analysis with Spreadsheets
- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics

- MATH 1190 - Business Calculus

  or

- MATH 1710 - Calculus I

All of the above courses can be substituted with an approved course if equivalent course is completed prior to enrollment at UNT.

Professional development courses, 3 hours

- BUSI 1200 - Professional Development I-Strategies for Business

- BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business

  or

- BUSI 3105 - Professional Development II - Critical Thinking and Decision Making in Business/Coursera

  May only take one course BUSI 3100 or BUSI 3105

- BUSI 3200 - Professional Development III

Basic business foundation requirements, 21 hours

- BCIS 3610 - Basic Information Systems
- BLAW 3430 - Legal and Ethical Environment of Business
- MGMT 3660 - Contemporary Business Writing and Presentation Skills
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- MGMT 3720 - Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice

Advanced level business courses, 15 hours

- 12 hours of upper-level business courses from approved list with grades of C or higher.
- Applied Business Project Course or Internship (3 hrs) with grade of C or higher.
- Of the 15 hours, 3 hours must be from the approved list of international business courses (BCIS 4730 - International Issues of Information Technology , FINA 4500 - International Finance , MGMT 4660 - International Management Perspectives , MKTG 4280 - Global Marketing Issues and Practice or other approved Business International course).
- Of the 15 hours, 3 hours must be from the approved list of creation of goods and services courses (DSCI 3870 - Management Science, ECON 4140 - Managerial Economics, LSCM 3960 - Logistics and Supply Chain Management, OPSM 3830 - Operations Management or any course approved by the G. Brint Ryan College of Business for coverage of creation of goods and services).
- Of the 15 hours, 6 hours must be from upper-level business courses approved by an advisor with grades of C or higher.

Electives

Minimum of 18 hours of free electives or enough free elective hours to reach required total of 120 hours for the degree. Number of electives varies depending on course selection for University Core Curriculum.

Other requirements

- A candidate for the degree must complete 33 hours of business administration courses in residence, of which 15 hours must be in the professional field of study.
- The G. Brint Ryan College of Business will not grant upper-division (3000–4000 level) degree credit for any transfer course taken at the lower division. Upper-division course work transferred from a regionally accredited four-year institution will be evaluated on an individual course basis to determine applicable degree credit. As a rule, upper division coursework taken at non-AASCB accredited institutions cannot be applied to satisfy upper division business course requirements.
- Registration for any junior- or senior-level course should be authorized by an advising clearance form or a formal degree plan.
- The applicability to a degree plan of all credits being transferred and/or awarded by placement or credit by examination must be determined in the dean's office either prior to enrollment at UNT or during the first term/semester of residence.
- It is the student's responsibility to meet all course prerequisites listed in the current catalog prior to enrollment in any course.
- A grade of C or above must be earned on each business administration foundation course completed in residence or transferred to UNT.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Elective	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
COMM 1010 - Introduction to Communication	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Component Area Option A core	3 hours	ECON 1110 - Principles of Macroeconomics	3 hours
Creative Arts core	3 hours	American History core	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
BCIS 2610 - Introduction to Computers in Business	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
BUSI 1200 - Professional Development I-Strategies for Business	1 hour	Elective	3 hours
ECON 1100 - Principles of Microeconomics	3 hours	Elective	3 hours
MATH 1190 - Business Calculus	3 hours	Elective	3 hours
Total	13 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BUSI 3200 - Professional Development III	1 hour
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	Applied Business Project or Internship	3 hours
BCIS 3610 - Basic Information Systems	3 hours	Approved International course	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	Approved Creation of Goods and Services course	3 hours
FINA 3770 - Finance	3 hours	Upper-Level Business Course selection	3 hours
MGMT 3720 - Organizational Behavior	3 hours	Upper-Level Business Course selection	3 hours
Total	16 hours	Total	16 hours

Grad Track Options

Business Integrated Studies, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Business Integrated Studies, BBA must be completed.

Business Integrated Studies, BBA with grad track option to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit

hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Business Integrated Studies, BBA must be completed.

General Business, BS with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the General Business, BS must be completed.

General Business, BS with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the General Business, BS must be completed.

Minors

Business Foundations minor

The business foundations minor is designed to provide a foundation in business concepts, operations and practice. The program consists of six courses (18 hours) that may be taken by non-business students in good academic standing.

Students may select from one of two tracks within the minor but may not combine courses across tracks.

General prerequisites for both tracks

Completion of the university's core mathematics and economics requirements. ACCT 2010 and ACCT 2020 are prerequisites for all upper-division (3000- and 4000-level) business courses. ECON 1110 is strongly recommended.

General business track

This track is directed toward students who desire a broad grounding in the various business disciplines. Required courses include:

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- FINA 3770 - Finance
- MKTG 3650 - Foundations of Marketing Practice

  or
- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors
- MGMT 3720 - Organizational Behavior

  or
- MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors

  or
- MGMT 3820 - Management Concepts
- Three hours chosen from any 3000- or 4000-level business courses (subject to all course prerequisites)

MBA preparation track

This track is designed for students who are considering continuing their studies in an MBA program. The courses on the list will meet many of the leveling requirements required of non-business majors entering an MBA program. In addition to those listed below, students wishing to pursue the MBA program should have also completed calculus and micro-and macro-economics (these courses are not built into this minor).

Required courses for the track include:

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- BLAW 3430 - Legal and Ethical Environment of Business

Plus three courses chosen from

- BCIS 3610 - Basic Information Systems
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- MKTG 3650 - Foundations of Marketing Practice

  or
- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors
- OPSM 3830 - Operations Management

Note

BCIS 3610, DSCI 3710 and OPSM 3830 have prerequisites not included in the minor.

Department of Accounting

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Business Leadership Building, Room 213

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Student Advising Office
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Web site: www.cob.unt.edu/acct

Ananth Seetharaman, Chair

Faculty

Mission in brief

To advance the knowledge and ethical practice of accounting, and promote technical, professional and personal skills to a diverse student body to excel in a technology-dependent global economy.

The mission of the doctoral program in accounting at the University of North Texas is to prepare students to conduct discipline-based research, appreciate a variety of research methods and engage in quality instructional activities.

Statement of commitment

The faculty of the Department of Accounting is committed to extending the body of knowledge in the areas of both discipline-based and practice-oriented research and to participating in the intellectual discourse in the field in general. The faculty is further committed to the dissemination of knowledge through high-quality teaching and other curricula-related endeavors. The faculty values service activities that contribute to the advancement of the profession and the academy and that provide opportunities for professional interaction and faculty development.

The department serves a diverse student body that is largely nontraditional and employed. The faculty is committed to providing an accommodating and supportive learning environment, including flexible class scheduling, office hours, modes of student-teacher communication and course delivery.

The faculty of the department is committed to preparing students for career development, life-long learning and a global work environment. The faculty strives to produce graduates who are technically competent, think independently, critically appraise situations, act in a responsible and ethical manner, and contribute positively and cooperatively to their employers and communities.

Majors

Accounting, BBA

In the BBA program with a professional field in accounting, students learn to appraise situations critically, act responsibly and ethically, as well as become strategic thinkers and problem-solvers. Our "learn today, apply tomorrow" classroom philosophy is achieved within an accommodative and supportive learning environment.

The following requirements must be satisfied for a Bachelor of Business Administration with a professional field in accounting:

Bachelor of Business Administration

The department offers the Bachelor of Business Administration with a professional field in accounting. General requirements for the BBA are listed in the University Core Curriculum in the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business.

Professional field in accounting, 28 hours

The following courses are required for the professional field in accounting:

- ACCT 3110 - Intermediate Accounting I (see note below)
- ACCT 3120 - Intermediate Accounting II
- ACCT 3270 - Cost Accounting
- ACCT 3405 - Professional Development
- ACCT 4100 - Accounting Systems
- ACCT 4140 - Advanced and Not-for-Profit Accounting Principles
- ACCT 4300 - Federal Income Taxation
- ACCT 4320 - Federal Income Taxation II
- ACCT 4400 - Auditing — Professional Responsibilities
- ACCT 4430 - Accounting Research and Data Analysis

Note: All students entering ACCT 3110 (Intermediate Accounting I) are required to complete and pass an entrance exam. This policy applies to both UNT students and transfer students. The exam will be administered at least three times a year and the student must obtain a passing grade of at least 70%. The exam will be composed by the full-time financial accounting faculty and administered by the Department of Accounting.

Approved supporting courses, 9 hours

The following courses selected by the student and approved in advance by the faculty advisor include one 3 hour course from each group.

International business course, 3 hours

Choose one from the following:

- BCIS 4730 - International Issues of Information Technology
- FINA 4500 - International Finance
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice

Approved elective, 3 hours

Choose one course from below:

- ACCT 4200 - Accounting Ethics and Corporate Governance
- or other elective approved by department

Creation of goods and services, 3 hours

Choose from:

- DSCI 3870 - Management Science
- LSCM 3960 - Logistics and Supply Chain Management
- OPSM 3830 - Operations Management

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1190 - Business Calculus	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Creative Arts core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
		Elective	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Language, Philosophy and Culture core	3 hours	American History core	3 hours
		Life and Physical Sciences core	3 hours
Total	12 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ACCT 3110 - Intermediate Accounting I	3 hours	ACCT 3120 - Intermediate Accounting II	3 hours
ACCT 3270 - Cost Accounting	3 hours	ACCT 3405 - Professional Development	1 hour
BCIS 3610 - Basic Information Systems	3 hours	ACCT 4100 - Accounting Systems	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MGMT 3720 - Organizational Behavior	3 hours
FINA 3770 - Finance	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
ACCT 4140 - Advanced and Not-for-Profit Accounting Principles	3 hours	ACCT 4320 - Federal Income Taxation II	3 hours
ACCT 4300 - Federal Income Taxation	3 hours	ACCT 4400 - Auditing — Professional Responsibilities	3 hours
ACCT 4430 - Accounting Research and Data Analysis	3 hours	MGMT 4940 - Strategic Management	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	Creation of Goods and Services Course selection	3 hours
Economics Elective-advanced	3 hours	International Business Course selection	3 hours
Total	15 hours	Total	15 hours

Accounting, BS (dual degree; may not be earned without completion of the MS)

The Bachelor of Science with a major in accounting is offered as part of a dual-degree program with the Master of Science with a major in accounting or the Master of Science with a major in taxation.

Dual Degrees

Accounting, BS and MS

Applies to Bachelor of Science with a major in accounting and Master of Science with a major in either accounting or taxation.

The combined Bachelor of Science with a major in accounting and Master of Science with a major in either accounting or taxation is a 150-semester-hour program designed to provide an appropriate base of knowledge for entry into the accounting profession, as well as a broad-based general educational background. Students awarded the Master of Science with a major in accounting or a major in taxation are simultaneously awarded the Bachelor of Science with a major in accounting. (The Bachelor of Science with a major in accounting is not awarded separately.)

Students who earn these degrees complete an educational program consistent with recommendations of professional accountants and accounting educators, and are prepared for entry into careers as public accountants, management accountants, or internal auditors within either the public or private sector.

The BS/MS program meets the 150-hour requirement for the Certified Public Accountant exam in Texas and other states.

Continuation requirements

Undergraduate students must meet the minimum standards of the Bachelor of Business Administration with a major in accounting to be admitted automatically to the undergraduate portion of the professional program. Students who have at least 60 hours of college credit but who lack credit in certain courses in the preprofessional program may be admitted provisionally with deficiencies. Students granted such provisional admission must proceed immediately to remove the deficiencies.

In addition to the departmental graduate admission requirements, a student must have a minimum overall program GPA of 2.8 and a minimum advanced accounting GPA of 3.0 in order to be admitted to the MS-Accounting or MS-Taxation program.

Students seeking admission who already hold a baccalaureate or higher degree should see the *Graduate Catalog* for information regarding the one-year (33-hour) Master of Science with a major in accounting or Master of Science with a major in taxation program.

The final decision regarding admission to the Master of Science with a major in accounting or Master of Science with a major in taxation programs rests with the Department of Accounting. Students enrolled in the BS/MS programs that are unable to complete all degree requirements may elect to change to the BBA in accounting degree program. Students will be required to complete all remaining degree requirements for the BBA degree, which may be as little as 6 semester credit hours. See undergraduate advisor for details.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in accounting/Master of Science with a major in either accounting or taxation.

Hours required and general/college requirements

A minimum of 150 semester hours (including a minimum of 120 undergraduate hours, of which 42 must be advanced) and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog, fulfillment of degree requirements for the Master of Science as specified below, and the G. Brint Ryan College of Business requirements.

Business foundation requirements

See “Professional program” requirements.

Professional field requirements

See “Professional program” (undergraduate/graduate accounting courses).

Other course requirements

- Completion of at least 30 semester hours of graduate work (at least 30 semester hours for MS with a major in either accounting or taxation).
- At least 30 semester hours in 5000-level accounting courses at UNT.

Electives

See individual degree plan.

Other requirements

- A GPA of 3.0 on all work taken beyond the 90th semester credit hour.
- After 9 graduate semester credit hours, an overall GPA of 3.0 must be maintained throughout the program.

Preprofessional program

University Core Curriculum requirements

See “University Core Curriculum requirements” as listed in the Academics section of this catalog.

Pre-business requirements

1. To enroll in upper-division courses in the G. Brint Ryan College of Business, the student must have:
2. Completion of at least 45 semester hours with a 2.0 UNT GPA
3. Completion of the following pre-business prerequisites with a minimum grade of C and a GPA of 2.7 on these nine courses (or equivalents): ENGL 1310; TECM 2700; MATH 1190 or MATH 1710; ECON 1100 and ECON 1110; ACCT 2010 and ACCT 2020; BCIS 2610; and DSCI 2710.
4. First-term/semester transfer students who have completed at least 45 semester hours at another institution must have a minimum 2.0 overall GPA on all transfer work accepted by UNT and a 2.7 pre-business GPA to be admitted to the Bachelor of Science program and to enroll in upper-division courses.

Note

Some of these requirements may be taken as part of the University Core Curriculum requirements.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Students are responsible for completing the total minimum hours required for the degree.

Preprofessional program

The 90 hours making up the professional program are subject to the prior approval of an accounting advisor. Courses include the following:

Business foundation, 18 hours

- BCIS 3610 - Basic Information Systems
- BLAW 3430 - Legal and Ethical Environment of Business
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- MGMT 3720 - Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice

Other courses, 9 hours

- ACCT 4200 - Accounting Ethics and Corporate Governance

Approved Elective, 3 hours choose one from:

- Any 3000/4000 level BCIS course
- DSCI 3870 - Management Science
- OPSM 3830 - Operations Management
- PRCH 4810 - Purchasing and Materials Management

Business Communications course, 3 hours

- MGMT 3660 - Contemporary Business Writing and Presentation Skills

Undergraduate accounting courses, 28 hours

- ACCT 3110 - Intermediate Accounting I (see note below)
- ACCT 3120 - Intermediate Accounting II
- ACCT 3270 - Cost Accounting
- ACCT 3405 - Professional Development
- ACCT 4100 - Accounting Systems
- ACCT 4140 - Advanced and Not-for-Profit Accounting Principles
- ACCT 4300 - Federal Income Taxation
- ACCT 4320 - Federal Income Taxation II
- ACCT 4400 - Auditing — Professional Responsibilities
- ACCT 4430 - Accounting Research and Data Analysis

Note: All students entering ACCT 3110 (Intermediate Accounting I) are required to complete and pass an entrance exam. This policy applies to both UNT students and transfer students. The exam will be administered at least three times a year and the student must obtain a passing grade of at least 70%. The exam will be composed by the full-time financial accounting faculty and administered by the Department of Accounting.

Graduate accounting and required courses, 30 hours

Either graduate accounting degree (the Master of Science with a major in accounting or the Master of Science with a major in taxation) requires 30 hours of accounting and other required courses.

Note: The student must be admitted to the Toulouse Graduate School before registering for these courses. The student should take the Graduate Management Admissions Test (GMAT) after completing approximately 90 semester hours of credit and prior to the term/semester during which the undergraduate program of 120 semester hours is completed. As soon as the test results are available, the student should contact the G. Brint Ryan College of Business Graduate Programs Office regarding application to the graduate school.

The 30-hour program varies with the major and concentration chosen. However, a minimum of 30 hours of 5000-level accounting courses must be taken. General requirements include the following:

- An accounting or tax research course (depending on the student's major)
- ACCT 5120 - Data Analysis in Accounting
- An accounting or tax capstone class (depending on the student's major)
- Accounting concentration (to be determined in consultation with advisor)
- Approved electives (to be determined in consultation with advisor)

At present, the department offers a concentrations under the Master of Science with major in accounting as follows:

- Audit and data analytics concentration
- Corporate accounting concentration

At present, the department offers a Master of Science with an Audit and Data Analytics concentration. Detailed information on the requirements of each concentration is available from the G. Brint Ryan College of Business Graduate Programs Office. Students with areas of interest not represented above are invited to consult with an accounting faculty advisor.

Professional Development Requirements

- ACCT 3405 - Professional Development (with a grade of C or higher)
- BUSI 1200 - Professional Development I-Strategies for Business (with a grade of C or higher)
- BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business (with a grade of C or higher)

Required courses, 21 hours

Pre-business requirements, along with BBA communication requirements constitute the basis for tiered progression in the BBA degree as outlined in the G. Brint Ryan College of Business Degree Requirements.

The following courses must be completed with a grade of C or higher.

**Certain Pre-business courses can be used to fulfill university core requirements.

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- BCIS 2610 - Introduction to Computers in Business
- DSCI 2710 - Data Analysis with Spreadsheets **
- ECON 1100 - Principles of Microeconomics **
- ECON 1110 - Principles of Macroeconomics **
- MATH 1190 - Business Calculus **
- MATH 1710 - Calculus I **

Minors

Accounting minor

An 18-hour minor in accounting is available to non-accounting majors.

Variation of the minor in accounting may be granted with approval from the Department of Accounting. It is the student's responsibility to satisfy required course prerequisites where applicable.

Students who minor in accounting must take

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)
- ACCT 3110 - Intermediate Accounting I
- ACCT 3120 - Intermediate Accounting II
- ACCT 3270 - Cost Accounting
- ACCT 4300 - Federal Income Taxation

Department of Finance, Insurance, Real Estate and Law

Main Office
Business Leadership Building, Room 212

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940-565-3050
Web site: www.cob.unt.edu/firel

Stephen Ferris, Chair

Faculty

The Department of Finance, Insurance, Real Estate and Law trains professionals to manage successfully all financial aspects of a firm and to manage and work within financial institutions, their regulatory bodies, investment firms and mortgage banks. It prepares students for careers in life insurance marketing, brokerage, underwriting and risk management in the insurance industry. The department educates individuals in real estate finance and investment, brokerage, property management and appraisal. The business law curriculum prepares business managers to function in the increasingly complex legal and ethical environment of business.

Instruction in the financial services field provides the expertise needed to achieve the Certified Financial Planner® (CFP) designation and to assist clients with investment decisions, taxation issues, estate and trust planning, and retirement. Study of economics teaches students how to make business decisions based on analysis of governmental policies, industry changes, technological advances and a myriad of other factors in careers such as banking, communications, trade or manufacturing, to name just a few.

All programs within the department prepare the students for more advanced professional work or schools and/or a successful career in business.

Scholarships

The Department of Finance, Insurance, Real Estate and Law offers a variety of competitive scholarships for full-time students majoring in finance, financial services, risk management and insurance, and real estate who have completed at least one or more terms at UNT and have a high overall GPA. A complete listing of scholarships with eligibility requirements and the application form are available online at cob.unt.edu/scholarships.

Majors

Economics, BBA

A Bachelor of Business Administration with a professional field in economics helps students develop a clear understanding of how to apply economic theory to real-world policy issues. The Department of Finance, Insurance, Real Estate and Law administers a rigorous curriculum leading to the BBA.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Professional field in economics, 18 hours

To earn a BBA in Economics, students must receive at least a B in ECON 1100 *and* ECON 1110*. A student must earn at least a C in any prerequisite course before taking the next course in a sequence.*

The following courses are required for the professional field in economics:

- ECON 3550 - Intermediate Micro-Theory
- ECON 3560 - Intermediate Macro-Theory
- ECON 4140 - Managerial Economics
- 9 advanced hours approved in advance by the economics department advisors.

Approved supporting courses, 12 hours

FINA 4500, plus 9 hours approved in advance by the department chair or professional field advisor. Courses in the College of Liberal Arts and Social Sciences may be counted as professional courses in business administration when authorized on a degree plan. ECON 4630 may not be used as an elective or a supporting course. ECON 3200 may not be used as a professional field or a supporting field course and therefore will not count toward a major in Economics.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Elective	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
DSCI 2710 - Data Analysis with Spreadsheets	3 hours	COMM 1010 - Introduction to Communication	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	ECON 3550 - Intermediate Micro-Theory	3 hours
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BCIS 3610 - Basic Information Systems	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	BUSI 3200 - Professional Development III	1 hour
ECON 3560 - Intermediate Macro-Theory	3 hours	ECON 4140 - Managerial Economics	3 hours
FINA 3770 - Finance	3 hours	MGMT 3720 - Organizational Behavior	3 hours
Economics Professional Field	3 hours	Supporting Field Course for BBA ECON*	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
FINA 4500 - International Finance	3 hours	MGMT 4940 - Strategic Management	3 hours
MKTG 3650 - Foundations of Marketing Practice	3 hours	Supporting Field Course for BBA ECON*	3 hours
Language, Philosophy and Culture core	3 hours	Economics Professional Field	3 hours
Supporting Field Course for BBA ECON*	3 hours	Elective	3 hours
Economics Professional Field	3 hours		
Total	15 hours	Total	12 hours

Notes

*Supporting Field Course for BBA ECON: Select from 3XXX/4XXX ECON course. See “Approved supporting courses” above for requirements.

Finance, BBA

A Bachelor of Business Administration with a professional field in finance trains you to manage all financial aspects of a firm successfully, understand its regulatory rules and understand how it fits into the financial market.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Finance professional field, 18 hours

The following courses are required for the professional field in finance:

- FINA 4200 - Investments
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions
- FINA 4400 - Financial Markets and Institutions
- FINA 4500 - International Finance

Plus 3 hours from

3 hours selected by the student from the following courses:

- BLAW 4450 - Corporation Law
- FIPL 4210 - Securities Licensing
- REAL 4000 - Real Estate Finance
- REAL 4300 - Real Estate Investments
- RMIN 4600 - Corporate Risk Management
- Any other FINA 4xxx level course.

Approved supporting courses, 12 hours

Required courses, 6 hours

- ACCT 3110 - Intermediate Accounting I
- FINA 4800 - Internship

Choose one course from

- ACCT 3120 - Intermediate Accounting II
- ACCT 3270 - Cost Accounting
- ACCT 4300 - Federal Income Taxation
- ECON 3200 - Behavioral Economics for Non-Economics Majors
- ECON 3550 - Intermediate Micro-Theory
- ECON 4030 - Economic Cycles and Forecasting
- ECON 4550 - Law and Economics
- ECON 4850 - International Trade
- FINA 3600 - Exploring Careers and Innovations in Banking
- FIPL 3100 - Fundamentals of Financial Planning
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4605 - Client Communications and Behavioral Finance
- RMIN 3100 - Introduction to Risk Management and Insurance *

Choose one from

- RMIN 2500 - Personal Risk Management *

  or
- REAL 2100 - Principles of Real Estate

  (May not take both RMIN 2500 and RMIN 3100)

- Any 3000- or 4000-level G. Brint Ryan College of Business or ECON course (Suggested course: FIPL 3100 - Fundamentals of Financial Planning or FIPL 4400 - Retirement Planning and Employee Benefits)
- Any 2000-level or higher foreign language or foreign literature course
- Any 3 hours of 3000- or 4000-level courses approved by the department chair

Note

*Student may not take both RMIN 2500 and RMIN 3100.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Component Area Option A core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Life and Physical Sciences core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ACCT 3110 - Intermediate Accounting I	3 hours	BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour
BCIS 3610 - Basic Information Systems	3 hours	DSCI 3710 - Business Statistics with Spreadsheets	3 hours
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	FINA 4200 - Investments	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	MGMT 3720 - Organizational Behavior	3 hours
FINA 3770 - Finance	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
		Elective	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
BUSI 3200 - Professional Development III	1 hour	MGMT 4940 - Strategic Management	3 hours
FINA 4300 - Financial Statement Analysis and Liquidity Management	3 hours	FINA 4310 - Valuation and Financial Decisions	3 hours
FINA 4400 - Financial Markets and Institutions	3 hours	FINA 4500 - International Finance	3 hours
Professional field course for BBA FINA	3 hours	FINA 4800 - Internship	3 hours
Supporting Field option 2 - BBA FINA	3 hours		
Supporting Field option 3 - BBA FINA	3 hours		
Total	16 hours	Total	12 hours

Financial Planning, BBA

A Bachelor of Business Administration in Financial Planning trains you to manage all aspects of a household's and individual's financial situations, understand regulatory rules and understand how they fit into the financial marketplace. This CFP® Board Registered program satisfies the education requirements and helps prepare students to sit for the Certified Financial PlannerTM (CFP®) Examination.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum requirements in the Degree and Program Requirements and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Professional Field requirements, 21 hours

Courses required to fulfill the CFP Board Education requirements:

- FIPL 3100 - Fundamentals of Financial Planning
- RMIN 2500 - Personal Risk Management

  or
- RMIN 3100 - Introduction to Risk Management and Insurance
- ACCT 4300 - Federal Income Taxation
- FINA 4200 - Investments
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4500 - Estate Planning
- FIPL 4610 - Financial Planning Capstone

Supporting Field Requirement, 9 hours

To satisfy the internship requirement:

**Internship subject to program director or FIREL department approval.*

- FINA 4800 - Internship
- FIPL 4800 - Internship

To satisfy the international course requirement

- FINA 4500 - International Finance

Other course requirements

Choose one (3 hours) from the following options:

Courses that provide training for additional industry licensing/ certifications:

- FIPL 4605 - Client Communications and Behavioral Finance
- FIPL 4200 - Life and Health Insurance Planning
- FIPL 4210 - Securities Licensing

Additional course options:

- DSCI 3870 - Management Science
- ECON 3200 - Behavioral Economics for Non-Economics Majors
- ECON 4140 - Managerial Economics
- FINA 3600 - Exploring Careers and Innovations in Banking
- FINA 4400 - Financial Markets and Institutions
- FIPL 2770 - Show Me the Money - Lessons in Money Education Can only be used to satisfy University Core or Supporting Field Requirement, not both.
- LSCM 3960 - Logistics and Supply Chain Management
- OPSM 3830 - Operations Management
- REAL 2100 - Principles of Real Estate

Electives

Electives may be required to satisfy University Core Curriculum, Ryan College of Business requirements, and minimum total hour requirements for the degree.

Additional requirements

Any other Ryan College of Business requirements for a BBA

Real Estate with a concentration in Residential Property Management, BBA

A Bachelor of Business Administration in real estate with a concentration in residential property management helps students obtain the skills, knowledge, training and experience necessary for a successful career in the residential property management industry.

It will help students prepare for the state licensing exam and will provide students with practical experience with locally owned properties.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Professional field, 18 hours

The following courses are required for the concentration in residential property management:

- BLAW 4770 - Real Estate Law and Contracts
- REAL 2100 - Principles of Real Estate
- REAL 4000 - Real Estate Finance
- REAL 4200 - Property Management
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Approved supporting courses, 12 hours

- REAL 4210 - Advanced Property Management
- BLAW 4790 - Property Management Law
- REAL 4800 - Internship

And one course chosen from

- FINA 4500 - International Finance
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice

Real Estate, BBA

A Bachelor of Business Administration in real estate prepares students for opportunities in all areas of real estate including commercial and residential brokerage, leasing, commercial and residential property management, appraisal, investments and mortgage/finance.

It will help students prepare for the state licensing exam and will provide students with practical experience with locally owned properties.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Professional field, 18 Hours

The following courses are required for the professional field in real estate:

- BLAW 4770 - Real Estate Law and Contracts
- REAL 2100 - Principles of Real Estate
- REAL 4000 - Real Estate Finance
- REAL 4200 - Property Management

  or
- REAL 3100 - Real Estate Agency

- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Approved supporting courses, 12 hours

Required course (3 hours)

- REAL 4800 - Internship

One course from:

- FINA 4500 - International Finance
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice

Plus 6 hours

Plus 6 hours approved by the faculty advisor from:

- BLAW 4790 - Property Management Law
- ECON 4650 - Economics of Cities
- FINA 4200 - Investments
- FINA 4400 - Financial Markets and Institutions
- MGMT 3850 - Foundations of Entrepreneurship
- MKTG 4120 - Consumer Behavior
- REAL 3100 - Real Estate Agency
- RMIN 2500 - Personal Risk Management *

  or
- RMIN 3100 - Introduction to Risk Management and Insurance *
- RMIN 4300 - Property/Liability Risk Management and Insurance
- Other courses as approved by the faculty advisor.

Note

*Student may not take both RMIN 2500 and RMIN 3100.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Component Area Option A core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Life and Physical Sciences core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	BCIS 3610 - Basic Information Systems	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BUSI 3200 - Professional Development III	1 hour
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	MGMT 3720 - Organizational Behavior	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
FINA 3770 - Finance	3 hours	REAL 4300 - Real Estate Investments	3 hours
REAL 2100 - Principles of Real Estate	3 hours	Elective	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
BLAW 4770 - Real Estate Law and Contracts	3 hours	MGMT 4940 - Strategic Management	3 hours
REAL 4000 - Real Estate Finance	3 hours	REAL 4400 - Real Estate Valuation	3 hours
International Business Course selection	3 hours	REAL 4800 - Internship	3 hours
Professional Field option for BBA REAL	3 hours	Supporting Field course for BBA REAL	3 hours
Supporting Field course for BBA REAL	3 hours		
Total	15 hours	Total	12 hours

Risk Management and Insurance, BBA

A Bachelor of Business Administration with a professional field in risk management and insurance gives you an in-depth understanding of areas related to risk management and insurance. Armed with this knowledge, you will have a competitive advantage over other new hires and be on the fast track into an upper-level position.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Professional field courses

- RMIN 2500 - Personal Risk Management *

  or
- RMIN 3100 - Introduction to Risk Management and Insurance *
- RMIN 4300 - Property/Liability Risk Management and Insurance
- RMIN 4310 - Insurance Company Operations
- RMIN 4600 - Corporate Risk Management
- RMIN 4800 - Internship

Supporting field courses

Choose one course from the following:

- FIPL 4200 - Life and Health Insurance Planning
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4500 - Estate Planning
- RMIN 4900 - Special Problems

Choose three courses from the following:

Any 3000 or 4000 level RCOB courses approved in advance by the RMIN Faculty Adviser.

Any 3000 or 4000 MATH or ECON courses approved for actuarial certificate.

Choose one course from the following:

- FINA 4500 - International Finance
- Or an international business course approved in advance by the RMIN Faculty Adviser.

Note

*Student may not take both RMIN 2500 and RMIN 3100.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Component Area Option A core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Life and Physical Sciences core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BUSI 3200 - Professional Development III	1 hour
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	FINA 3770 - Finance	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	MKTG 3650 - Foundations of Marketing Practice	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	RMIN 4310 - Insurance Company Operations	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	RMIN 4600 - Corporate Risk Management	3 hours
RMIN 3100 - Introduction to Risk Management and Insurance	3 hours	International Business course selection	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
FINA 4500 - International Finance	3 hours	MGMT 4940 - Strategic Management	3 hours
MGMT 3720 - Organizational Behavior	3 hours	RMIN 4800 - Internship	3 hours
RMIN 4300 - Property/Liability Risk Management and Insurance	3 hours	Supporting field option 2 - BBA RMIN	3 hours
Supporting field option 1 - BBA RMIN	3 hours	Elective	3 hours
Supporting field option 2 - BBA RMIN	3 hours		
Total	15 hours	Total	12 hours

Grad Track Options

Economics, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)

- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Economics, BBA must be completed.

Economics, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Economics, BBA must be completed.

Finance, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Finance, BBA must be completed.

Finance, BBA with grad track option leading to Finance, MS

Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway. Final admission will demand a 3.5 GPA at the time of application, which will qualify the student for a test waiver, successful completion of all grad track pathway courses with a GPA of 3.5 or higher, 3 letters of recommendation, essay, resume and official application submitted and approved by the Toulouse Graduate School.

6 hours selected from:

- FINA 5310 - Advanced Topics in Financial Management (replacing FINA 4310 - Valuation and Financial Decisions)
- FINA 5400 - Financial Markets and Institutions (replacing FINA 4400 - Financial Markets and Institutions)
- FINA 5500 - International Financial Management (replacing FINA 4500 - International Finance)

All remaining courses for Finance, BBA must be completed.

Finance, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Finance, BBA must be completed.

Financial Planning, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Financial Planning, BBA must be completed.

Financial Planning, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Financial Planning, BBA must be completed.

Real Estate with a concentration in Residential Property Management, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Real Estate with a concentration in Residential Property Management, BBA must be completed.

Real Estate with a concentration in Residential Property Management, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Real Estate with a concentration in Residential Property Management, BBA must be completed.

Real Estate, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Real Estate, BBA must be completed.

Real Estate, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Real Estate, BBA must be completed.

Risk Management and Insurance, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Risk Management and Insurance, BBA must be completed.

Risk Management and Insurance, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)

MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)

MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)

MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Risk Management and Insurance, BBA must be completed.

Minors

Finance minor

A minor in finance requires 18 hours:

Required courses

- FINA 3770 - Finance
- FINA 4200 - Investments
- FINA 4400 - Financial Markets and Institutions
- FINA 4500 - International Finance

One course selected from

- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions

One course selected from

- FINA 4210 - Introduction to Derivatives
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions
- REAL 4000 - Real Estate Finance
- RMIN 4600 - Corporate Risk Management

Financial Planning minor

A minor in financial planning requires 18 hours, including:

Required courses

- ACCT 4300 - Federal Income Taxation
- FIPL 3100 - Fundamentals of Financial Planning
- FINA 4200 - Investments
- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4500 - Estate Planning
- FIPL 4610 - Financial Planning Capstone

Legal Studies in Business minor

A minor in legal studies in business requires 18 hours.

18 hours selected from the following

- BLAW 2000 - Personal Law
- BLAW 3430 - Legal and Ethical Environment of Business
- BLAW 4450 - Corporation Law
- BLAW 4770 - Real Estate Law and Contracts
- BLAW 4790 - Property Management Law
- ECON 4550 - Law and Economics
- FIPL 4500 - Estate Planning
- LGAV 3150 - Transportation Regulation and Trade Compliance
- MGMT 3880 - Business Ethics and Social Responsibility

Real Estate minor

A minor in real estate requires 18 hours, including:

Required courses, 9 hours

- BLAW 4770 - Real Estate Law and Contracts
- REAL 2100 - Principles of Real Estate
- REAL 3100 - Real Estate Agency

3 hours selected from

- REAL 4000 - Real Estate Finance
- REAL 4200 - Property Management
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

6 hours selected from

- BLAW 3430 - Legal and Ethical Environment of Business
- FIPL 2770 - Show Me the Money - Lessons in Money Education

  or
- FINA 3770 - Finance
- MKTG 3010 - Foundations of Selling and Communication
- REAL 4200 - Property Management
- RMIN 2500 - Personal Risk Management

  or
- RMIN 3100 - Introduction to Risk Management and Insurance
- Any upper-level business course approved by the department.

Residential Property Management minor

A minor in residential property management requires 18 hours, including:

Requirements

- BLAW 4790 - Property Management Law
- REAL 2100 - Principles of Real Estate
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management

Plus 3 hours from

One course chosen from the following:

- BLAW 4770 - Real Estate Law and Contracts
- REAL 4000 - Real Estate Finance
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

And 3 hours from

One course chosen from the following:

- MGMT 3820 - Management Concepts
- MGMT 3860 - Human Resource Management
- MGMT 4470 - Leadership
- MGMT 4860 - Organizational Design and Change
- MKTG 3720 - Digital Marketing Fundamentals
- MKTG 4120 - Consumer Behavior

Note

FINA 3770 is a prerequisite or corequisite for REAL 4000, REAL 4300, and REAL 4400.

Risk Management and Insurance minor

A minor in risk management and insurance requires 18 hours.

Required courses

- RMIN 2500 - Personal Risk Management

  or
- RMIN 3100 - Introduction to Risk Management and Insurance

  (Choose RMIN 2500 or RMIN 3100. May not take both.)
- RMIN 4600 - Corporate Risk Management

Plus 6 hours selected from

- FIPL 4400 - Retirement Planning and Employee Benefits
- FIPL 4500 - Estate Planning
- FIPL 4200 - Life and Health Insurance Planning
- RMIN 4300 - Property/Liability Risk Management and Insurance
- RMIN 4310 - Insurance Company Operations
- RMIN 4800 - Internship
- RMIN 4900 - Special Problems

Plus 6 hours selected from

- 3000/4000 level MATH, ECON, EADP or any RCOB courses approved in advance by the RMIN Faculty Adviser.

Undergraduate Academic Certificates

Banking Studies certificate

Requirements, 12 hours

- FINA 3600 - Exploring Careers and Innovations in Banking
- FINA 4100 - Using Numbers: Converting Financial Data Into Smart Banking Decisions
- FINA 4150 - Lending Smarts: How to Finance Business Growth with Confidence
- FINA 4800 - Internship

Financial Services certificate

The Certificate in Financial Services requires a total of 12 hours and is open to students of any major. There are 4 required courses that provide students with the education necessary to prepare for a career in financial services. These courses are designed for students to receive basic financial literacy and retirement planning training. The courses will prepare students to sit for FINRA SIE and Series 63 exams and for the Texas General Lines - Life, Accident, and Health Insurance exam. These securities and insurance licenses are often requirements for obtaining entry-level jobs for major financial services employers in the industry.

Requirements, 12 hours

- FIPL 2770 - Show Me the Money - Lessons in Money Education
- FIPL 4200 - Life and Health Insurance Planning
- FIPL 4210 - Securities Licensing
- FIPL 4400 - Retirement Planning and Employee Benefits

Residential Property Management certificate

Requirements, 12 hours

A grade of C or better is required.

- BLAW 4790 - Property Management Law
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management

Plus 3 hours selected from

- REAL 2100 - Principles of Real Estate
- REAL 4000 - Real Estate Finance
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Note

FINA 3770 is a prerequisite or corequisite for REAL 4000, REAL 4300 and REAL 4400.

Department of Information Technology and Decision Sciences

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Anna Sidorova, Chair

Faculty

The Department of Information Technology and Decision Sciences educates business computer information systems designers, systems and business analysts for careers in industry and government. Two strong undergraduate programs are available for students who intend to pursue careers in the growing business computing and analytics fields.

Majors

Applied Project Design and Analysis, BS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the G. Brint Ryan College of Business requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" for the Bachelor of Science with a major in Applied Project Design and Analysis.

Major of 50 hours, including:

- ADAR 2020 - Data Design, Analysis and Representation
- ADAR 3020 - Inferential Analysis
- ADAR 3220 - Applied Project Analytics
- ADAR 4020 - Process Optimization and Prescriptive Analysis
- ADSN 3030 - Applied Design Principles and Practices
- ADSN 4030 - Applied Strategic Design
- PRJM 3010 - Integrative Seminar II: Best Practices
- PRJM 3011 - Integrative Seminar II: Strategies of Growth
- PRJM 4010 - Integrative Seminar III: Campus to Career
- PRJM 4011 - Integrative Seminar III: Life as a Young Professional
- APMG 2011 - Project Workshop: Beginner
- APMG 3120 - Problem Analysis
- APMG 3121 - Project Workshop: Intermediate
- APMG 3220 - Project Management II
- APMG 3221 - Project Workshop: Intermediate
- APMG 4121 - Project Workshop: Advanced

- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- SPDA 3012 - Internship II *

*Internship experience will need to be entered into Handshake and approved prior to student enrollment in course. May be used for 1-6 hours or repeated for credit up to a maximum of 6 hours. 1 credit hour is equal to 65 clock hours on the internship. The degree plan (50 hours in the major) assumes 3 credit hours of internship experience in a relevant field.

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the G. Brint Ryan College of Business.

Other requirements

A minimum grade of C is required in each course of the major; a minimum UNT GPA of 2.0 and a minimum GPA of 2.50 in the major is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADAR 2020 - Data Design, Analysis and Representation	3 hours	ADAR 3020 - Inferential Analysis	3 hours
CACS 2000 - Applied Professional Communications	3 hours	APMG 2011 - Project Workshop: Beginner	1 hour
CACS 2030 - Creativity and Complex Problems	3 hours	PRJM 3110 - Principles of Project Management	3 hours
Communication core	3 hours	PRJM 3130 - Research and Design Methods for Project Management	3 hours
Life and Physical Sciences core	3 hours	Communication core	3 hours
		Elective	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ADAR 3220 - Applied Project Analytics	3 hours	PRJM 3011 - Integrative Seminar II: Strategies of Growth	1 hour
PRJM 3010 - Integrative Seminar II: Best Practices	1 hour	APMG 3220 - Project Management II	3 hours
APMG 3120 - Problem Analysis	3 hours	APMG 3221 - Project Workshop: Intermediate	1 hour
APMG 3121 - Project Workshop: Intermediate	1 hour	CACS 2040 - Team Development	3 hours
American History core	3 hours	American History core	3 hours
Life and Physical Sciences core	3 hours	Component Area Option A core	3 hours
Total	14 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
ADAR 4020 - Process Optimization and Prescriptive Analysis	3 hours	ADSN 3030 - Applied Design Principles and Practices	3 hours
SPDA 3012 - Internship II	1–6 hours	Government/Political Science core	3 hours
Creative Arts core	3 hours	Language, Philosophy and Culture core	3 hours
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
Elective	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADSN 4030 - Applied Strategic Design	3 hours	APMG 4121 - Project Workshop: Advanced	1 hour
PRJM 4010 - Integrative Seminar III: Campus to Career	1 hour	Component Area Option B core	3 hours
PRJM 4011 - Integrative Seminar III: Life as a Young Professional	1 hour	Elective-advanced	3 hours
Mathematics core	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective	3 hours
Elective	4 hours	Elective	3 hours
Total	15 hours	Total	16 hours

Business Analytics, BBA

A Bachelor of Business Administration (BBA) with a professional field in business analytics prepares you for successful careers in business analytics and data science. You will build a background in analytical and quantitative methods and apply these methods to the analysis of business data to enable data-driven decision-making in organizations. In addition, as part of the core BBA coursework, you will gain an understanding of accounting, manufacturing, finance, management, supply chain management, marketing and information technology through a comprehensive curriculum.

Bachelor of Business Administration

General requirements for the BBA are listed in the University Core Curriculum in the Degree and Program Requirements section of this catalog and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Business analytics professional field

The professional field in business analytics requires 18 hours of the following courses.

- BCIS 4660 - Introduction to Data Warehousing
- DSCI 3870 - Management Science
- DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making

Approved supporting courses, 12 hours

- BCIS 4730 - International Issues of Information Technology (or MKTG 4280, FINA 4500, or MGMT 4660, if approved in advance by departmental undergraduate coordinator)

Remaining hours

The remaining hours are selected from the following courses:

- BCIS 3630 - Object-Oriented Programming for Business
- BCIS 3680 - Advanced Object-Oriented Programming for Business
- BCIS 4620 - Introduction to Database Applications
- BCIS 4750 - Blockchain for Business
- DSCI 4800 - Internship
- MKTG 3700 - Marketing Metrics
- MKTG 3710 - Marketing Research and Analytics
- MKTG 4620 - E-Commerce Marketing Tools and Applications
- OPSM 3830 - Operations Management
- OPSM 4820 - Manufacturing Planning and Control
- OPSM 4880 - Management of Projects and Systems
- PRCH 4810 - Purchasing and Materials Management

Additional Requirements

A candidate for the degree must complete 33 hours of business administration courses in residence, of which 15 hours must be in the professional field of study. Students are encouraged to use free electives to meet professional goals.

Students interested in the theoretical and mathematical science of computing should see the Department of Computer Science and Engineering.

Academic Standards

1. It is recommended that students selecting business analytics as a professional field for the BBA degree meet at least one of the following standards:
    a. Be in the top 25 percent of their high school graduating class; or
    b. Attain a minimum score of 920 recentered on the SAT or 20 on the ACT.
2. It is required that students entering the business analytics professional field for the BBA degree have a GPA of at least 2.7 in all courses completed at UNT. First term/semester transfer students must have a transfer GPA of at least 2.7 in order to take professional field courses.
3. A grade of C or above must be earned in each professional field or supporting field course completed in residence or transferred to UNT.
4. Academic requirements for graduation with a professional field in business analytics include:
    a. A minimum 2.7 GPA in all hours attempted in the professional field and supporting courses, with minimum grades of C required in each professional and supporting field course;
    b. A minimum 2.0 GPA in all courses completed at UNT; and
    c. A grade of C or above in each BCIS/DSCI course taken in the professional field, supporting decision sciences courses or career track.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Component Area Option A core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Life and Physical Sciences core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BUSI 3200 - Professional Development III	1 hour
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	DSCI 3870 - Management Science	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	MGMT 3720 - Organizational Behavior	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
Elective	3 hours	Supporting field suggested elective sequences for BBA BUAN	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
BCIS 4660 - Introduction to Data Warehousing	3 hours	MGMT 4940 - Strategic Management	3 hours
DSCI 4520 - Introduction to Data Mining	3 hours	DSCI 4510 - Modeling for Business Intelligence	3 hours
FINA 3770 - Finance	3 hours	DSCI 4700 - Analytics for Decision Making	3 hours
Approved International course	3 hours	Supporting field suggested elective sequences for BBA BUAN	3 hours
Supporting field suggested elective sequences for BBA BUAN	3 hours		
Total	15 hours	Total	12 hours

Business Computer Information Systems, BS

A Bachelor of Science with a major in Business Computer Information Systems prepares you for careers in digital transformation, data and technology management, enterprise computing, information systems development, and information security management by building a thorough understanding of how information technology is developed and applied to critical business problems. Developed in consultation with world business leaders in the region, successful completion of this program ensures that you will have the knowledge and skill set that the market demands.

The faculty of the Department of Information Technology and Decision Sciences believes that there is a need in industry and government for systems analysts who have a thorough understanding of both a functional area of business and computer-based information systems.

The following requirements must be satisfied for a Bachelor of Science with a major in business computer information systems.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the G. Brint Ryan College of Business requirements regarding tiered progression and the Professional Development courses except for the professional development course BUSI 3200 which is not required for the BS Business Computer Information Systems degree.

Preprofessional program

See Pre-business requirements in Bachelor of Business Administration in this catalog

Professional program

Business Computer Information Systems, 33 hours:

- BCIS 3630 - Object-Oriented Programming for Business
- BCIS 3680 - Advanced Object-Oriented Programming for Business
- BCIS 4610 - Analysis of Business Information Systems
- BCIS 4620 - Introduction to Database Applications
- BCIS 4630 - Fundamentals of Information Technology Security
- BCIS 4680 - Business Data Communications and Networking
- BCIS 4690 - Information Technology Management
- BCIS 4720 - Web-Based Information Technologies

Upper-level business foundation

- BCIS 3610 - Basic Information Systems
- BCIS 3615 - Business Communication for Information Technology Professionals
- BLAW 3430 - Legal and Ethical Environment of Business
- MGMT 4940 - Strategic Management
- DSCI 3710 - Business Statistics with Spreadsheets

  or
- DSCI 3870 - Management Science
- FINA 3770 - Finance
- MGMT 3720 - Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice

Electives

Select three courses from the following. Students are encouraged to select at least two of the three electives from the same group:

Analytics and Data Management

- BCIS 4660 - Introduction to Data Warehousing
- DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics
- DSCI 4520 - Introduction to Data Mining

Information Security

- BCIS 4740 - Administration and Policy in Information Security
- BCIS 4760 - Introduction to Business Aspects of Digital Forensics
- BCIS 4770 - Operating Systems Security Principles for Business

Large-Scale Enterprise Computing

- BCIS 3620 - Mainframe Concepts
- BCIS 3690 - Advanced Mainframe Concepts
- BCIS 4780 - Cloud Computing for Business

Other Electives

- BCIS 4670 - Continuing Seminar in Computer-Based Information Systems
- BCIS 4730 - International Issues of Information Technology
- BCIS 4750 - Blockchain for Business
- BCIS 4800 - Internship
- BCIS 4900 - Special Problems

Electives

Hours required for electives may vary based on course placement or University Core Curriculum course selection. Some professional field programs may designate specific courses in place of elective hours. Students are responsible for completing the total minimum hours required for the degree.

Other requirements

Professional Development Requirements:

- BUSI 1200 - Professional Development I-Strategies for Business (with a grade of C or higher)
- BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business (with a grade of C or higher)

BUSI 1200 and BUSI 3100 both require a grade of C or higher. These professional development requirements must be taken prior to MGMT 4940.

Other requirements for the BS Business Computer Information Systems:

a. It is required that students entering the business computer information systems major for the BS degree have a grade point average of at least 2.7 in all courses completed at UNT. First term/semester transfer students must have a transfer grade point average of 2.7 in order to take professional program courses.

b. A grade of C or above must be earned in each professional program course completed in residence or transferred to UNT.

c. Academic requirements for graduation with a major in business computer information systems for the BS degree:
   - A minimum 2.7 grade point average in all hours attempted in the professional program course, with minimum grades of C required in each professional program course;
   - A grade of C or above in each BCIS course taken in the professional program.

Minor

See individual degree plan.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Elective	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BCIS 3680 - Advanced Object-Oriented Programming for Business	3 hours
BCIS 3615 - Business Communication for Information Technology Professionals	3 hours	BCIS 4610 - Analysis of Business Information Systems	3 hours
BCIS 3630 - Object-Oriented Programming for Business	3 hours	BCIS 4620 - Introduction to Database Applications	3 hours
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	MKTG 3650 - Foundations of Marketing Practice	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BCIS Elective	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours		
Total	16 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BCIS 4630 - Fundamentals of Information Technology Security	3 hours	BCIS 4690 - Information Technology Management	3 hours
BCIS 4680 - Business Data Communications and Networking	3 hours	BCIS 4720 - Web-Based Information Technologies	3 hours
FINA 3770 - Finance	3 hours	MGMT 4940 - Strategic Management	3 hours
MGMT 3720 - Organizational Behavior	3 hours	BCIS Elective	
BCIS Elective	3 hours	Elective	1 hour
Total	15 hours	Total	13 hours

Project Design and Analysis, BS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the G. Brint Ryan College of Business requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" for the Bachelor of Science with a major in Project Design and Analysis.

Major of 63 hours, including:

- ADAR 2020 - Data Design, Analysis and Representation
- ADAR 3020 - Inferential Analysis
- ADAR 4020 - Process Optimization and Prescriptive Analysis
- ADSN 2030 - Applied Design Thinking
- ADSN 3030 - Applied Design Principles and Practices
- ADSN 3031 - Applied Design Research
- ADSN 4030 - Applied Strategic Design
- PRJM 2010 - Integrative Seminar I: Foundations (1 hour)
- PRJM 2011 - Integrative Seminar I: Professional Practices (1 hour)
- PRJM 3010 - Integrative Seminar II: Best Practices (1 hour)
- PRJM 3011 - Integrative Seminar II: Strategies of Growth (1 hour)
- PRJM 4010 - Integrative Seminar III: Campus to Career (1 hour)
- PRJM 4011 - Integrative Seminar III: Life as a Young Professional (1 hour)
- APMG 2011 - Project Workshop: Beginner
- APMG 2041 - Project Workshop: Beginner
- APMG 3120 - Problem Analysis
- APMG 3121 - Project Workshop: Intermediate
- APMG 3220 - Project Management II
- APMG 3221 - Project Workshop: Intermediate
- APMG 4020 - Organizational Contexts and Change
- APMG 4021 - Project Workshop: Advanced
- APMG 4120 - Capstone
- APMG 4121 - Project Workshop: Advanced
- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- SPDA 2012 - Internship I
- SPDA 3012 - Internship II
- SPDA 4012 - Internship III

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the G. Brint Ryan College of Business.

Other course requirements

A minimum grade of C is required in each course in the major; a minimum UNT GPA of 2.0 and a minimum GPA of 2.50 in the major is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADAR 2020 - Data Design, Analysis and Representation	3 hours	ADAR 3020 - Inferential Analysis	3 hours
PRJM 2010 - Integrative Seminar I: Foundations	1 hour	APMG 2041 - Project Workshop: Beginner	1 hour
APMG 2011 - Project Workshop: Beginner	1 hour	PRJM 3110 - Principles of Project Management	3 hours
CACS 2000 - Applied Professional Communications	3 hours	CACS 2030 - Creativity and Complex Problems	3 hours
PRJM 3130 - Research and Design Methods for Project Management	3 hours	SPDA 2012 - Internship I	1–6 hours
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Social and Behavioral Sciences core	3 hours
Total	17 hours	Total	17 hours

Summer	
PRJM 2011 - Integrative Seminar I: Professional Practices	1 hour
ADSN 2030 - Applied Design Thinking	3 hours
Component Area Option A core	3 hours
Total	7 hours

Year 2

Semester 1		Semester 2	
PRJM 3010 - Integrative Seminar II: Best Practices	1 hour	ADSN 3030 - Applied Design Principles and Practices	3 hours
APMG 3120 - Problem Analysis	3 hours	APMG 3220 - Project Management II	3 hours
APMG 3121 - Project Workshop: Intermediate	1 hour	APMG 3221 - Project Workshop: Intermediate	1 hour
CACS 2040 - Team Development	3 hours	SPDA 3012 - Internship II	1–6 hours
Creative Arts core	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Total	17 hours	Total	17 hours

Summer	
PRJM 3011 - Integrative Seminar II: Strategies of Growth	1 hour
ADSN 3031 - Applied Design Research	3 hours
Component Area Option B core	3 hours
Total	7 hours

Year 3

Semester 1		Semester 2	
ADAR 4020 - Process Optimization and Prescriptive Analysis	3 hours	ADSN 4030 - Applied Strategic Design	3 hours
PRJM 4010 - Integrative Seminar III: Campus to Career	1 hour	PRJM 4011 - Integrative Seminar III: Life as a Young Professional	1 hour
APMG 4020 - Organizational Contexts and Change	3 hours	APMG 4120 - Capstone	3 hours
APMG 4021 - Project Workshop: Advanced	1 hour	APMG 4121 - Project Workshop: Advanced	1 hour
SPDA 4012 - Internship III	1–6 hours	American History core	3 hours
American History core	3 hours	Elective	3 hours
Elective	3 hours	Elective	2 hours
Total	15 hours	Total	16 hours

Business Analytics, BBA with grad track option leading to Business Analytics, MS

The Department of Information Technology and Decision Sciences would like to build a new pathway in Business Analytics to encourage its brightest students to move into graduate study after completing their bachelor's degrees. The selected pathway courses mirror learning objectives and the partnership makes good sense for those students ready for advanced study.

Admission requirements and program policies

Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway. Final admission will demand a 3.5 GPA at the time of application, which will qualify the student for a GMAT waiver, successful completion of all grad track pathway courses with a GPA of 3.5 or higher, 3 letters of recommendation, essay, resume and official application submitted and approved by the Toulouse Graduate School.

Program requirements, 6 hours

- BCIS 4660 - Introduction to Data Warehousing with BCIS 5610 – Enterprise Data Warehousing
- DSCI 4520 - Introduction to Data Mining with DSCI 5240 – Data Mining and Machine Learning for Business
  OR
- DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics with DSCI 5330 – Business Intelligence Foundations

All remaining courses for the Business Analytics, BBA must be completed.

Business Computer Information Systems, BS with grad track option leading to Information Systems and Technologies, MS

Admission requirements and program policies

Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway. Final admission will demand a 3.5 GPA at the time of application, which will qualify the student for a GMAT waiver, successful completion of all grad track pathway courses with a GPA of 3.5 or higher, 3 letters of recommendation, essay, resume and official application submitted and approved by the Toulouse Graduate School.

The BS in Business Computer Information Systems is 120 credit hours, the MS in Information Systems & Technology is 30 hours. Up to 6 graduate credit hours may be used first toward the bachelor's degree, then transferred to the master's degree upon completion of the bachelor's.

Program requirements, 6 hours

Allow the substitution of the following courses:

- BCIS 4740 - Administration and Policy in Information Security with BCIS 5740 - Information Security Management

And one of the following:

- BCIS 4610 - Analysis of Business Information Systems with BCIS 5120 – Information Systems Development
- BCIS 4720 - Web-Based Information Technologies with BCIS 5680 Web-Based Systems Development
- BCIS 4660 - Introduction to Data Warehousing with BCIS 5610 – Enterprise Data Warehousing
- BCIS 4730 - International Issues of Information Technology with BCIS 5670 - International Issues in Information Technology

All remaining courses for the Business Computer Information Systems, BS must be completed.

Project Design and Analysis, BS with grad track option leading to Advanced Data Analytics, MS

Application and registration process

- Declared project design and analysis students with
  - a cumulative GPA 3.5 or higher for the last 60 hours completed.
  - 75 or more credit hours completed.

May apply during their junior year.

- The following courses must be completed with a grade of C or higher or be in progress at the time of application:
  - ADTA 4130
  - ADTA 4240
  - ADTA 4250
  - MATH 1710
  - MATH 1720
- Students submit the Toulouse Graduate School's Conditional Admission and Advisor Course Approval Form to the graduate coordinator for the advanced data analytics pathway list above. A signed copy of that form must be submitted to the project design and analysis advisor for official records.
- Students may not take a graduate class until 90 credit hours have been completed and must complete their BS degree within one year of taking their first graduate course within the track in order to have the courses transferred to their graduate plan.
- Students apply for admission to the advanced data analytics MS program through the Toulouse Graduate School prior to the first semester of their final undergraduate year at UNT.

Students selected onto the grad track must complete the courses listed above. Then they will replace the final courses of the analysis and design sequences in the major with two graduate data analytics courses from the master's degree program.

Admission process and standards

To be admitted to the program, students submit the following items to the project design and analysis grad track coordinator:

- Written statement of purpose (500-700 words)
- Resume or CV

The student's current transcript will also be pulled by the advisor to verify GPA and prerequisites. Grad track program admission decisions will be made holistically and in collaboration with the graduate program coordinators. Students will be notified of whether they were selected to be admitted to the grad track program through a letter co-signed by the project design and analysis faculty coordinator and the advanced data analytics graduate coordinator.

Communication and monitoring

Students are given a copy of this process form by their advisor to

- Clarify all application and admissions requirements;
- Notify students that they remain undergraduates until all undergraduate degree requirements and their BS degree is posted to their transcript;
- Notify students that they are not eligible for most graduate perquisites, including teaching and research assistantships and related health insurance, financial aid or graduate award programs until their undergraduate degree is posted; and
- Notify students that graduate courses successfully completed as a part of the grad track will be transferred officially as pass/fail credits to their graduate transcript, not factoring into the graduate GPA.

Student progress will be monitored through transcript and academic progress reports to the project design and analysis faculty coordinator and the advanced data analytics graduate coordinators after each term, provided by the advisor. The cumulative GPA must remain above 3.0, with no course grades below C for the student to be considered to be making satisfactory academic progress in the grad track. A student who fails to meet this standard will be removed from the grad track program.

Required courses, 22 hours

All remaining hours for Project Design and Analysis, BS must be completed.

- ADTA 5230 - Data Analytics II
- ADTA 5340 - Discovery and Learning with Big Data
- ADTA 4130 - Data Analytics and Computational Statistics 1
- ADTA 4240 - Principles of Data Structures, Harvesting and Wrangling
- ADTA 4250 - Principles of Data Visualization for Large Data
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

Minors

Business Analytics minor

A minor in business analytics is open to non-business analytics majors.

Variation of the minor in business analytics may be granted with approval from the Department of Information Technology and Decision Sciences. It is the student's responsibility to satisfy the required course prerequisites where applicable.

18 hours selected from the following:

- BCIS 4660 - Introduction to Data Warehousing
- DSCI 2710 - Data Analysis with Spreadsheets
- DSCI 3710 - Business Statistics with Spreadsheets
- DSCI 3870 - Management Science
- DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making
- OPSM 3830 - Operations Management

Business Computer Information Systems minor

A minor in business computer information systems is available to non-business computer information systems majors.

Variation of the minor in BCIS may be granted with approval from the Department of Information Technology and Decision Sciences. It is the student's responsibility to satisfy the required course prerequisites where applicable.

18 hours, including

- BCIS 3630 - Object-Oriented Programming for Business
- BCIS 4610 - Analysis of Business Information Systems
- BCIS 4620 - Introduction to Database Applications

Plus three courses selected from

- BCIS 4630 - Fundamentals of Information Technology Security
- BCIS 4660 - Introduction to Data Warehousing
- BCIS 4680 - Business Data Communications and Networking
- BCIS 4690 - Information Technology Management
- BCIS 4720 - Web-Based Information Technologies
- BCIS 4740 - Administration and Policy in Information Security

Department of Management

Main Office
Business Leadership Building, Room 207

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Nolan Gaffney, Chair

Faculty

Mission/vision statement

The mission of the Department of Management is to provide quality management education leading to bachelor's, master's and doctoral degrees; to conduct relevant basic and applied research; to engage in instructional development; and to provide professional expertise and service to the department's constituent communities. Our mission is accomplished with a primary focus on the undergraduate and master's degrees, while maintaining a small, high-quality doctoral program in keeping with the mission of the G. Brint Ryan College of Business. This mission reflects our firm belief in the importance of teaching, supported by intellectual contributions and service.

The vision of the Department of Management, as leading educators, is to work together as a team of professionals with a singular focus — student learning. Central to the implementation of this vision is that students are our first priority. Their success is our success. We further believe that we are accountable as educators to display academic leadership. Finally, our success is enhanced by the business community as partners in developing cutting-edge education.

Professional field

The terms "professional field" (BBA degree programs), "concentration" (MBA degree programs) and "major" (BBA, PhD degree programs) are used to designate the primary area of study.

Career opportunities

For information on career opportunities for graduates of the Department of Management, visit our web site (www.cob.unt.edu/mgmt).

Majors

Entrepreneurship and Enterprise Management, BBA

From home-based businesses to venture capital start-ups, entrepreneurs work in all types of jobs and industries and are a driving force behind economic growth. The Bachelor of Business Administration with a professional field in entrepreneurship gives you maximum flexibility and preparation to chart your own future.

Bachelor of Business Administration

The department offers the Bachelor of Business Administration degree in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Academic standards

Refer to the G. Brint Ryan College of Business Academic Standards and the Bachelor of Business Administration General Degree Requirements sections.

Entrepreneurship and Enterprise Management professional field, 18 hours

The following courses are required for the professional field in entrepreneurship.

A C or higher is required in all professional and supporting courses and students must maintain an overall 2.00 GPA in professional and supporting field courses.

Required courses

- MGMT 3850 - Foundations of Entrepreneurship
- MGMT 4100 - Business Planning for Entrepreneurs

Four courses from the following

- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Entrepreneurial Growth and Strategy
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4710 - Family Entrepreneurship

Approved supporting courses, 12 hours

Supporting courses required

- MGMT 3820 - Management Concepts
- MGMT 4660 - International Management Perspectives
- MGMT 4860 - Organizational Design and Change

Supporting course

Choose one of the following courses:

- ACCT 3270 - Cost Accounting
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- MGMT 3860 - Human Resource Management
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4270 - Sustainability Management
- MGMT 4470 - Leadership
- MGMT 4800 - Internship
- MKTG 3700 - Marketing Metrics
- RMIN 3100 - Introduction to Risk Management and Insurance
- RMIN 4300 - Property/Liability Risk Management and Insurance

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Component Area Option A core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Government/Political Science core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Life and Physical Sciences core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BUSI 3200 - Professional Development III	1 hour
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	FINA 3770 - Finance	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MGMT 3720 - Organizational Behavior	3 hours
MGMT 3850 - Foundations of Entrepreneurship	3 hours	MGMT 3820 - Management Concepts	3 hours
MKTG 3650 - Foundations of Marketing Practice	3 hours	Professional field option for BBA ENMG	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MGMT 4100 - Business Planning for Entrepreneurs	3 hours	MGMT 4940 - Strategic Management	3 hours
Professional field option for BBA ENMG	3 hours	MGMT 4660 - International Management Perspectives	3 hours
Professional field option for BBA ENMG	3 hours	MGMT 4860 - Organizational Design and Change	3 hours
Supporting field option for BBA ENMG	3 hours	Professional field option for BBA ENMG	3 hours
Elective	3 hours		
Total	15 hours	Total	12 hours

Human Resource Management, BBA

A Bachelor of Business Administration with a professional field in human resource management gives you the skills to help an organization develop a competitive advantage by managing, employing, developing and implementing workplace policies, people and structures.

Program requirements

Bachelor of Business Administration

The department offers the Bachelor of Business Administration degree in the professional fields listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

Academic standards

Refer to the G. Brint Ryan College of Business Academic Standards and the Bachelor of Business Administration General Degree Requirements sections.

Human resource management professional and supporting field courses, 30 hours

Professional field courses, 18 hours

- MGMT 3860 - Human Resource Management
- MGMT 4130 - People Analytics and Information Systems
- MGMT 4180 - Workplace Health and Safety
- MGMT 4300 - Talent Acquisition and Management
- MGMT 4790 - Strategic Human Resource Management (to be taken in final term)
- MGMT 4840 - Strategic Rewards and Performance Management

Supporting courses, 12 hours

Required, 6 hours

- MGMT 4660 - International Management Perspectives
- MGMT 4800 - Internship

Plus 6 hours

Select two courses from the following:

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4150 - Power, Influence and Politics in Organizations
- MGMT 4470 - Leadership
- MGMT 4860 - Organizational Design and Change

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Component Area Option A core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	BUSI 3200 - Professional Development III	1 hour
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	FINA 3770 - Finance	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MGMT 3720 - Organizational Behavior	3 hours
MGMT 3860 - Human Resource Management	3 hours	MGMT 4130 - People Analytics and Information Systems	3 hours
MKTG 3650 - Foundations of Marketing Practice	3 hours	Supporting field option	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MGMT 4180 - Workplace Health and Safety	3 hours	MGMT 4940 - Strategic Management	3 hours
MGMT 4300 - Talent Acquisition and Management	3 hours	MGMT 4800 - Internship	3 hours
MGMT 4660 - International Management Perspectives	3 hours	MGMT 4840 - Strategic Rewards and Performance Management	3 hours
MGMT 4790 - Strategic Human Resource Management	3 hours	Supporting field option	3 hours
Elective	3 hours		
Total	15 hours	Total	12 hours

Management, BBA

A Bachelor of Business Administration with a professional field in management prepares you for management trainee programs in a variety of industries and company types, and entry-level general management/leadership roles.

Degree requirements

Bachelor of Business Administration

The department offers the Bachelor of Business Administration degree in the professional field listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements and under Bachelor of Business Administration in the G. Brint Ryan College of Business.

Professional field courses, 18 hours

- MGMT 3820 - Management Concepts
- MGMT 3860 - Human Resource Management
- MGMT 4470 - Leadership
- MGMT 4660 - International Management Perspectives
- MGMT 4800 - Internship
- MGMT 4860 - Organizational Design and Change

Supporting field courses, 12 hours

Select 4 courses from MGMT 3000 and 4000-level courses. The following courses are recommended:

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4150 - Power, Influence and Politics in Organizations
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4270 - Sustainability Management
- MGMT 4335 - Technology and Innovation Management

Electives

Electives may be required to satisfy University Core Curriculum, Ryan College of Business requirements, and minimum total hour requirements for the degree.

Additional requirements

Any other Ryan College of Business requirements for a BBA.

Sport Entertainment Management, BBA

A Bachelor of Business Administration with a professional field in sport entertainment management provides you the background needed to make confident, successful decisions in today's competitive marketplace. You will gain an understanding of the sport entertainment industry through a comprehensive curriculum.

Bachelor of Business Administration

General requirements for the BBA are listed in the University Core Curriculum in the Degree and Program Requirements section of this catalog and under Bachelor of Business Administration in the G. Brint Ryan College of Business section.

In order to reach 120 hours, this degree will require students to take some courses that are used to fulfill two requirements between the core and the pre-business.

Professional field in sport entertainment management, 33 hours

Major requirements, 21 hours

- MGMT 4800 - Internship
- SENM 3500 - Sport in the Global Marketplace
- SENM 3600 - Venue and Event Operations in the Sport Entertainment Industry

- SENM 4230 - International Brand Strategies in the Sport Entertainment Industry
- SENM 4240 - Corporate Partnerships in the Sport Entertainment industry
- SENM 4310 - Talent Management in the Sports Entertainment Industry
- SENM 4870 - Business Planning in the Sports Entertainment Industry

Elective professional and supporting field courses, 12 hours

Students must choose 4 courses from the list below:

- EDEM 1600 - Introduction to Global Event Management
- EDEM 2510 - Exhibition and Convention Management
- EDEM 3210 - Intellectual Property and Sports Entertainment
- EDEM 3240 - Event Service Essentials
- EDEM 3500 - Event Catering Operations
- EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- EDEM 3700 - Modern Wedding Planning
- EDEM 4500 - Strategic Event Design
- EDEM 4200 - Sustainability in the Event Industry
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 3700 - Hotel Operations
- JOUR 2400 - Fundamentals of Public Relations Practices
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4270 - Strategic Social Media
- JOUR 4355 - Sport Media Relations
- MGMT 4270 - Sustainability Management
- MKTG 3010 - Foundations of Selling and Communication
- SENM 4020 - Ticket Operations in the Sport Entertainment Industry
- SENM 4325 - Fan Engagement Strategies in the Sport Entertainment Industry
- SENM 3700 - Pricing Strategies in the Sport Entertainment Industry
- SENM 3900 - Leadership for Sport Business Professionals in the 21st Century

Minor

Optional.

Electives

Hours required for electives may vary based on course placement or University Core Curriculum course selection. Students are responsible for completing the total minimum hours required for the degree.

Grad Track Options

Entrepreneurship & Enterprise Management, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Entrepreneurship and Enterprise Management, BBA must be completed.

Entrepreneurship and Enterprise Management, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

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- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Entrepreneurship and Enterprise Management, BBA must be completed.

Human Resource Management, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Human Resource Management, BBA must be completed.

Human Resource Management, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Human Resource Management, BBA must be completed.

Management, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

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- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Management, BBA must be completed.

Management, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
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- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Management, BBA must be completed.

Sport Entertainment Management, BBA with grad track option leading to Sport Entertainment Management, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- SENM 5150 - Marketing Practices in the SEI (MKTG 3650 - Foundations of Marketing Practice)
- SENM 5401 - Talent Management in the Sports Entertainment Industry (SENM 4310 - Talent Management in the Sports Entertainment Industry)

Note

All remaining courses for the Sport Entertainment Management, BBA must be completed.

Entrepreneurship and Enterprise Management minor

Requires 18 hours (6 courses, as follows):

Required courses

- MGMT 3820 - Management Concepts
- MGMT 3850 - Foundations of Entrepreneurship

Plus four courses from

- MGMT 3720 - Organizational Behavior *

  or

- MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors *

- MGMT 4100 - Business Planning for Entrepreneurs
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Entrepreneurial Growth and Strategy
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4710 - Family Entrepreneurship

Note

Students should check prerequisites and scheduled course offerings in order to satisfy course prerequisites and to register for courses in the appropriate sequence.

*Students must select either MGMT 3720 or MGMT 3721 as approved by the student's major.

Human Resource minor

Requirements, 18 hours

Required

- MGMT 3860 - Human Resource Management

Select 3 Professional Field courses

- MGMT 4130 - People Analytics and Information Systems
- MGMT 4180 - Workplace Health and Safety
- MGMT 4300 - Talent Acquisition and Management
- MGMT 4790 - Strategic Human Resource Management
- MGMT 4840 - Strategic Rewards and Performance Management

Select 2 Supporting Field courses

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4150 - Power, Influence and Politics in Organizations
- MGMT 4470 - Leadership
- MGMT 4860 - Organizational Design and Change

Management minor

Requirements, 18 hours

Required

- MGMT 3720 - Organizational Behavior

  or

- MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors

Plus 15 additional hours of MGMT courses. The following are suggested:

- MGMT 3820 - Management Concepts
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4470 - Leadership
- MGMT 4660 - International Management Perspectives
- MGMT 4860 - Organizational Design and Change

Note

Students should check prerequisites and scheduled course offerings in order to satisfy course prerequisites and to register for courses in the appropriate sequence.

Undergraduate Academic Certificates

Entrepreneurship and Enterprise Management certificate

Students must remain in good academic standing at the University of North Texas and receive a grade of C or higher in each course required for the certificate.

Required courses, 12 hours

- MGMT 3850 - Foundations of Entrepreneurship

Plus 3 courses from

- MGMT 4100 - Business Planning for Entrepreneurs
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4710 - Family Entrepreneurship

Note

Students should check prerequisites and scheduled course offerings so that they register for courses in an appropriate sequence.

Department of Marketing

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Business Leadership Building, Room 205

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PO Box 311160
Denton, TX 76201
940-565-3120
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Charles Blankson, Chair

Faculty

The Department of Marketing offers professional education programs to prepare individuals for the pursuit of marketing careers with manufacturers, retail and wholesale, profit and nonprofit service organizations, governmental agencies, and academic institutions. Additionally, the department of marketing offers education programs in professional selling that prepare individuals with a strong desire for B2B and B2S sales, as well as business development careers.

Academic Standards

Please refer to the G. Brint Ryan College of Business Degree Requirements.

Professional field

The terms "professional field" (BBA, MBA degree programs) and "major" (BS, PhD degree programs) are used to designate the primary area of study.

Certificates

The department offers undergraduate academic certificates in marketing. For additional details, please contact the department.

Majors

Marketing with a concentration in Professional Selling, BBA

A Bachelor of Business Administration with a concentration in Professional Selling gives you the skills to identify target audiences, gather market information, develop products and services and more.

Degree requirements

Bachelor of Business Administration

The department offers the Bachelor of Business Administration degree in the professional field listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business.

Professional field in marketing with a concentration in professional selling, 28 hours

Students must apply for admission into the professional selling concentration and meet specific admission criteria. See the Department of Marketing for details. A grade of C or above must be earned in each professional field and supporting course completed in residence or transferred to UNT.

- MKTG 3010 - Foundations of Selling and Communication (cannot be applied to both the business foundation and professional field)
- MKTG 3700 - Marketing Metrics
- MKTG 3720 - Digital Marketing Fundamentals
- MKTG 3881 - Personal Professional Development
- MKTG 4280 - Global Marketing Issues and Practice
- MKTG 4470 - Business-to-Business Marketing
- MKTG 4570 - Professional Selling Analytics
- MKTG 4670 - Advanced Professional Selling
- MKTG 4770 - Sales Force Design and Management
- MKTG 4805 - Internship in Professional Selling

Approved supporting courses, 3 hours

Three hours of 3000/4000-level marketing course chosen in consultation with the Departmental Advisor.

Marketing, BBA

A Bachelor of Business Administration with a professional field in marketing gives you the skills to identify target audiences, gather market information, develop products and services and more. Additionally, to get a competitive advantage over other job seekers, you can earn certificates in e-commerce, new product development, and retailing.

Degree requirements

Bachelor of Business Administration

The department offers the Bachelor of Business Administration degree in the professional field listed below. General requirements for the BBA are listed in the University Core Curriculum and the Degree and Program Requirements section and under Bachelor of Business Administration in the G. Brint Ryan College of Business.

Professional field in Marketing, 22 hours

The professional field in marketing consists of 22 hours of course work beyond Foundations of Marketing Practice (MKTG 3650), plus an additional 9 hours of supporting field courses. A grade of C or above must be earned in each professional field and supporting course completed in residence or transferred to UNT. The professional field consists of the following courses:

- MKTG 3700 - Marketing Metrics
- MKTG 3710 - Marketing Research and Analytics
- MKTG 3720 - Digital Marketing Fundamentals
- MKTG 3881 - Personal Professional Development
- MKTG 4120 - Consumer Behavior
- MKTG 4280 - Global Marketing Issues and Practice
- MKTG 4330 - Strategic Brand Management
- MKTG 4890 - Applied Marketing Problems

Approved supporting field courses, 9 hours

Nine hours of 3000- or 4000-level marketing courses.

The supporting field courses can be varied to meet the needs of students seeking specialized training toward career objectives in marketing management, sales management, retail management, logistics and professional selling.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Component Area Option A core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BCIS 3610 - Basic Information Systems	3 hours	BLAW 3430 - Legal and Ethical Environment of Business	3 hours
BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour	FINA 3770 - Finance	3 hours
MGMT 3660 - Contemporary Business Writing and Presentation Skills	3 hours	MKTG 3700 - Marketing Metrics	3 hours
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	MKTG 4280 - Global Marketing Issues and Practice	3 hours
MKTG 3650 - Foundations of Marketing Practice	3 hours	Supporting field option	3 hours
MKTG 3720 - Digital Marketing Fundamentals	3 hours		
Total	16 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
MKTG 3710 - Marketing Research and Analytics	3 hours	MGMT 4940 - Strategic Management	3 hours
MGMT 3720 - Organizational Behavior	3 hours	MKTG 4890 - Applied Marketing Problems	3 hours
MKTG 3881 - Personal Professional Development	1 hour	Supporting field option	3 hours
MKTG 4120 - Consumer Behavior	3 hours	Supporting field option	3 hours
MKTG 4330 - Strategic Brand Management	3 hours	Elective	3 hours
Total	13 hours	Total	15 hours

Marketing with a concentration in Professional Selling, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Marketing with a concentration in Professional Selling, BBA must be completed.

Marketing with a concentration in Professional Selling, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Marketing with a concentration in Professional Selling, BBA must be completed.

Marketing, BBA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Marketing, BBA must be completed.

Marketing, BBA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Marketing, BBA must be completed.

Minors

Marketing minor

A minor in marketing requires 18 hours.

Required courses, 18 hours

- MKTG 3650 - Foundations of Marketing Practice

  or

- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors

Plus 15 hours from

- MKTG 2650 - Culture and Consumption
- MKTG 3010 - Foundations of Selling and Communication
- MKTG 3660 - Advertising Management
- MKTG 3700 - Marketing Metrics
- MKTG 3710 - Marketing Research and Analytics
- MKTG 3720 - Digital Marketing Fundamentals
- MKTG 4120 - Consumer Behavior
- MKTG 4280 - Global Marketing Issues and Practice
- MKTG 4330 - Strategic Brand Management
- MKTG 4520 - Marketing Channels and Strategic Partnerships
- MKTG 4600 - Retailing
- MKTG 4620 - E-Commerce Marketing Tools and Applications
- MKTG 4630 - Retailing II
- MKTG 4800 - Internship in Marketing
- MKTG 4890 - Applied Marketing Problems

Professional Selling minor

Students must apply for admission into the minor in professional selling and meet specific admission criteria. See the Department of Marketing for details. A grade of C or higher is required in each course in the minor.

Exceptions to the requirements may be granted with approval from the Department of Marketing. It is the student's responsibility to satisfy the required course prerequisites where applicable.

Required courses, 18 hours

- MKTG 3010 - Foundations of Selling and Communication
- MKTG 4470 - Business-to-Business Marketing
- MKTG 4570 - Professional Selling Analytics
- MKTG 4670 - Advanced Professional Selling
- MKTG 4770 - Sales Force Design and Management
- MKTG 4805 - Internship in Professional Selling

Undergraduate Academic Certificates

E-commerce Marketing certificate

For information, please contact the Department of Marketing.

New Product Development certificate

For information, please contact the Department of Marketing.

Department of Supply Chain Management

Main Departmental Office
Business Leadership Building, Room 206

Mailing address:
1155 Union Circle #311396
Denton, TX 76203-5017
940-565-3120
Web site: cob.unt.edu/lom

Brian Sauser, Chair

Faculty

Research

Research interests of the faculty include transportation, supply chain mapping, project management, supply chain metrics, logistics costing and pricing, cash-to-cash, use of real options, economic forecasting through the use of the supply chain, new product development, franchising, cross-cultural consumer buying behavior, advertising, sales promotion, corporate image, internet marketing, positioning and services marketing.

In addition to the UNT Faculty Research Fund, research in the department has been sponsored by Fortune 500 Companies, Texas Logistics Education Foundation, Texas Motor Transportation Association, NSF, NASA, and Texas Department of Transportation.

Degree programs

The college offers a Master of Business Administration with a major in business administration and concentrations in supply chain management and supply chain analytics.

The college offers a Doctor of Philosophy with a major in business and concentrations in logistics systems.

Minimum admission standards are established by the graduate faculty of the Ryan College of Business and the Department of Supply Chain Management. Satisfaction of the minimum standards does not guarantee admission to a degree program. The graduate faculty of the logistics and operations management department have established additional requirements specific to the academic programs within the department.

Majors

Industrial Distribution, BS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the G. Brint Ryan College of Business requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" for the Bachelor of Science with a major in Industrial Distribution.

Major of a minimum of 62 hours, including:

- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- ENGR 3000 - Foundations of Manufacturing
- INDS 1001 - Seminar in Industrial Distribution I

- INDS 2001 - Seminar in Industrial Distribution II
- INDS 3010 - Digital Trends in Industrial Distribution
- INDS 3020 - Industrial Channel Selling
- INDS 3030 - Industrial Computer Science and Informatics
- INDS 3060 - Complexity and System Dynamics
- INDS 3110 - Industrial Chemistry
- INDS 3130 - Industrial Life Sciences
- INDS 3140 - Applied Fermentation
- INDS 3150 - Industrial Cost Management
- INDS 4000 - Visual Thinking and Data Design
- INDS 4010 - Introduction to Industrial Systems and Analysis
- INDS 4020 - Industrial Channel Strategy
- INDS 4040 - Industrial Innovation and Ideation
- INDS 4800 - Internship for Industrial Distribution
- LSCM 3960 - Logistics and Supply Chain Management

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the G. Brint Ryan College of Business.

Other requirements

A minimum grade of C is required in each course of the major; a minimum UNT GPA of 2.0 and a minimum GPA of 2.50 in the major is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CACS 2000 - Applied Professional Communications	3 hours	INDS 2001 - Seminar in Industrial Distribution II	1 hour
PRJM 3110 - Principles of Project Management	3 hours	INDS 3110 - Industrial Chemistry	3 hours
INDS 1001 - Seminar in Industrial Distribution I	1 hour	INDS 3030 - Industrial Computer Science and Informatics	3 hours
Communication core	3 hours	INDS 3150 - Industrial Cost Management	3 hours
Mathematics core	3 hours	Communication core	3 hours
Elective	3 hours	Life and Physical Sciences core	3 hours
Total	16 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
PRJM 3130 - Research and Design Methods for Project Management	3 hours	INDS 3130 - Industrial Life Sciences	3 hours
CACS 2030 - Creativity and Complex Problems	3 hours	INDS 3020 - Industrial Channel Selling	3 hours
INDS 3010 - Digital Trends in Industrial Distribution	3 hours	American History core	3 hours
American History core	3 hours	Component Area Option A core	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
INDS 3060 - Complexity and System Dynamics	3 hours	ENGR 3000 - Foundations of Manufacturing	3 hours
INDS 3140 - Applied Fermentation	3 hours	Government/Political Science core	3 hours
Component Area Option B core	3 hours	Language, Philosophy and Culture core	3 hours
Government/Political Science core	3 hours	Elective	3 hours
Creative Arts core	3 hours	Elective	4 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
INDS 4000 - Visual Thinking and Data Design	3 hours	INDS 4020 - Industrial Channel Strategy	3 hours
INDS 4010 - Introduction to Industrial Systems and Analysis	3 hours	CACS 2040 - Team Development	3 hours
LSCM 3960 - Logistics and Supply Chain Management	3 hours	INDS 4040 - Industrial Innovation and Ideation	3 hours
Social and Behavioral Sciences core	3 hours	INDS 4800 - Internship for Industrial Distribution	1–6 hours
Elective	3 hours		
Total	15 hours	Total	12 hours

Supply Chain Management, BS

The course work for the Bachelor of Science with a major in supply chain management encompasses all of the activities involved in getting a product to the consumer. Because this field is so broad, virtually any business could be a potential employer.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in supply chain management.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum and the Degree and Program Requirements section and the G. Brint Ryan College of Business requirements.

Pre-Business requirements

- ACCT 2010 - Accounting Principles I (Financial Accounting) (with a grade of C or higher)
- ACCT 2020 - Accounting Principles II (Managerial Accounting) (with a grade of C or higher)
- BCIS 2610 - Introduction to Computers in Business (with a grade of C or higher)
- DSCI 2710 - Data Analysis with Spreadsheets
- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus

  or
- MATH 1710 - Calculus I (with a grade of C or higher)

Business Foundation requirements

In addition to ACCT 2010, ACCT 2020, BCIS 2610 and DSCI 2710, the BS degree requires the following 21 semester hours of basic foundation courses in business administration:

- BLAW 3430 - Legal and Ethical Environment of Business
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- LSCM 3960 - Logistics and Supply Chain Management
- MGMT 3720 - Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice
- OPSM 3830 - Operations Management

Major requirements

The major in supply chain management consists of 30 hours beyond the business foundations requirements, 9 hours of degree core, 9 hours of concentration core, 6 hours of professional field electives, 3 hours of internship, and 3 hours of capstone.

Supply Chain Management Core

- LSCM 4360 - Global Alliances and International Supply Chain Management
- PRCH 4810 - Purchasing and Materials Management
- OPSM 4880 - Management of Projects and Systems

Logistics concentration

- LSCM 4510 - Logistics and Business Analysis
- LSCM 4530 - E-Logistics in Supply Chain Management
- LSCM 4560 - Business Transportation Management
- Professional Field Electives (6 hours)

Logistics Internship and Capstone

- LSCM 4800 - Logistics Internship
- LSCM 4860 - Advanced Logistics Management

Operations concentration

- OPSM 4820 - Manufacturing Planning and Control
- OPSM 4830 - Productivity and Quality Management
- OPSM 4850 - Lean/Six Sigma
- Professional Field Electives (6 hours)

Operations Internship and Capstone

- LSCM 4860 - Advanced Logistics Management
- OPSM 4800 - Internship in Operations and Supply Management

Aviation Logistics concentration

- LGAV 3100 - Introduction to Aviation Industry
- LGAV 3120 - Aviation Safety Systems
- LGAV 3130 - Air Cargo Planning and Control
- Professional Field Electives (6 hours)

Aviation Logistics Internship and Capstone

- LGAV 4100 - Airport and Infrastructure Planning and Control
- LSCM 4800 - Logistics Internship

Supply Chain Analytics concentration

- DSCI 3870 - Management Science
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- Professional Field Electives (6 hours)

Supply Chain Analytics Internship and Capstone

- LSCM 4860 - Advanced Logistics Management
- LSCM 4800 - Logistics Internship

Purchasing concentration

- PRCH 4825 - Sourcing Strategy and Supplier Relationship Management
- PRCH 4835 - Cost and Price Analysis
- PRCH 4845 - B2B Negotiations
- Professional Field Electives (6 hours)

Purchasing Internship and Capstone

- LSCM 4860 - Advanced Logistics Management
- PRCH 4800 - Internship in Purchasing

Professional Field electives

*An additional 6 hours of professional field course work from any 3XXX/4XXX level course within the G. Brint Ryan College of Business or exceptions with approval from department advisor.

Electives

Hours required for electives may vary based on course placement or University Core Requirement course selection. Some professional field programs may designate specific courses in place of elective hours. Students are responsible for completing the total minimum hours required for the degree.

Other requirements

1. It is required that students entering the supply chain management major for the BS degree have a grade point average of at least 2.7 in all courses completed at UNT. First term/semester transfer students must have a transfer grade point average of 2.7 in order to take professional program courses.
2. A grade of C or above must be earned in each professional program course completed in residence or transferred to UNT.
3. Academic requirements for graduation with a major in supply chain management for the BS degree:
   - A minimum 2.0 grade point average in all hours attempted in the professional program course, with minimum grades of C required in each professional program course.
   - A minimum 2.0 grade point average in all courses completed at UNT.
   - A grade of C or above in each course taken in the professional program.

Professional Development

BUSI 1200, BUSI 3100 and BUSI 3200 all require a grade of C or higher.

- BUSI 1200 - Professional Development I-Strategies for Business
- BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business
- BUSI 3200 - Professional Development III

- COMM 1010 - Introduction to Communication

  or
- TECM 2700 - Technical Writing

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	BCIS 2610 - Introduction to Computers in Business	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	BUSI 1200 - Professional Development I-Strategies for Business	1 hour
Government/Political Science core	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Life and Physical Sciences core	3 hours	ENGL 1320 - First-Year Writing II	3 hours
Component Area Option A core	3 hours	MATH 1190 - Business Calculus	3 hours
		Government/Political Science core	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	ACCT 2020 - Accounting Principles II (Managerial Accounting)	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	COMM 1010 - Introduction to Communication	3 hours
American History core	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
DSCI 3710 - Business Statistics with Spreadsheets	3 hours	BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business	1 hour
FINA 3770 - Finance	3 hours	LSCM 4510 - Logistics and Business Analysis	3 hours
LSCM 3960 - Logistics and Supply Chain Management	3 hours	LSCM 4560 - Business Transportation Management	3 hours
MKTG 3650 - Foundations of Marketing Practice	3 hours	LSCM 4800 - Logistics Internship	3 hours
Elective	3 hours	OPSM 3830 - Operations Management	3 hours
		PRCH 4810 - Purchasing and Materials Management	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	BUSI 3200 - Professional Development III	1 hour
LSCM 4360 - Global Alliances and International Supply Chain Management	3 hours	LSCM 4860 - Advanced Logistics Management	3 hours
LSCM 4530 - E-Logistics in Supply Chain Management	3 hours	OPSM 4880 - Management of Projects and Systems	3 hours
MGMT 3720 - Organizational Behavior	3 hours	Professional Field Elective	3 hours
Professional Field Elective	3 hours	Elective	3 hours
Total	15 hours	Total	13 hours

Minors

Logistics and Supply Chain Management minor

The minor in logistics and supply chain management requires 18 hours.

Requirements

Students who wish to minor in logistics and supply chain management must take one required course:

- LSCM 3960 - Logistics and Supply Chain Management

Plus 15 hours

Any five courses selected from the following:

- LGAV 3120 - Aviation Safety Systems
- LGAV 3130 - Air Cargo Planning and Control
- LGAV 3140 - Air Passenger Planning and Control
- LGAV 3150 - Transportation Regulation and Trade Compliance
- LSCM 4360 - Global Alliances and International Supply Chain Management
- LSCM 4530 - E-Logistics in Supply Chain Management
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems
- LSCM 4560 - Business Transportation Management

College of Education

Main Office
Matthews Hall, Room 117

Mailing address:
1155 Union Circle #311337
Denton, TX 76203-5017
940-565-2235
Fax: 940-565-4415
Web site: www.coe.unt.edu

Student Advising Office
Matthews Hall, Room 105
940-565-2736
Web site: coe.unt.edu/student-advising.html

Post-Baccalaureate Teacher Certification Program
Matthews Hall, Room 206
Web site: coe.unt.edu/educator-preparation-office/educator-certification
Email: COE-PBAdvisors@unt.edu

Angie Cartwright, Interim Dean
Amanda Vickery, Associate Dean for Educator Preparation Programs
Brian McFarlin, Associate Dean for Research and Undergraduate Studies
Ruth Lowery, Associate Dean for Graduate Studies and Faculty Affairs

Faculty

Mission

Developing professionals who help others reach their full potential through powerful learning, social-emotional wellness, physical health and civic engagement.

Vision

The Dallas—Fort Worth region, Texas, the United States and the world will pursue increasing numbers of our graduates as informed and thoughtful practitioners.

The people our students serve will become personally committed to the processes in which our students engage them, and client/student outcomes will inspire those who know them.

The work of those practitioners, and the policies needed to support them, will be understood by the general public and by policy makers.

Our faculty research will be influential and useful to both practitioners and other researchers in their areas of inquiry; our researchers will be widely recognized for their expertise.

The College of Education will be recognized for its excellence – in rankings and in the quality of students and faculty who seek to join us.

The College of Education will be sought out for advice and partnership, across the university and by international and community organizations.

We Value

Whole people – Though our particular specializations may focus on the body, on learning or on emotional well-being, our research and practitioners serve individuals as whole people.

Wellness – Our research and practice with communities and individuals focuses on physical, emotional and intellectual wellness across the lifespan and across domains of experience.

Lifelong learning – Formal learning experiences, like school or therapy, should prepare individuals to remain inquirers and learners across their lives.

Social connectedness – Individuals live, learn and recreate in communities; our research and teaching should strengthen interpersonal bonds and social improvement.

Equity – People from all social groups should experience fairness, access, similar opportunities and satisfactory outcomes in their quests for learning and health.

Innovation – We create worlds of innovators. Our research and teaching break with past practices to expand possibilities, the practitioners and researchers we prepare learn to innovate in their own work, and the people they serve, in turn, invent and advance new practices in their spheres of influence.

The College of Education educator preparation program is accredited by the Texas Education Agency-State Board for Educator Certification https://tea.texas.gov/. The program in counselor education is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) (5999 Stevenson Avenue, 4th Floor; Alexandria, VA 22304; 703-823-4800, ext. 301 www.cacrep.org). The program in recreation and leisure studies is accredited by the National Recreation and Park Association/American Association of Leisure and Recreation Council on Accreditation (22377 Belmont Ridge Road, Ashburn, VA 20148; 703-858-0784).

Degrees offered

The college offers these undergraduate and graduate degrees:

- Bachelor of Science with majors in human development and family studies; education (teacher certification in early childhood through grade 6, bilingual education, and special education); kinesiology; health behavior and fitness; and recreation, event and sport management;
- Master of Education with majors in counseling; curriculum and instruction; educational leadership; higher education; special education; and teaching;
- Master of Science with majors in counseling; development and family studies; early childhood education; educational psychology; higher education; and kinesiology;
- Doctor of Philosophy with majors in counseling; curriculum and instruction; educational leadership; educational psychology; higher education; human performance and movement science; and special education;
- Doctor of Education with majors in educational leadership; and higher education.

General requirements for each undergraduate degree are listed in the appropriate departmental section of this catalog. Requirements for graduate degrees are listed in the UNT Graduate Catalog.

Prospective graduate students must meet all admission requirements of the Toulouse Graduate School, the College of Education and the selected graduate degree program within the college. Admission to the individual programs is done through a holistic review of the application portfolio of each candidate. Some financial support for graduate student teaching and research is available from the programs and from the College.

Programs of study

The following programs of study, organized by department, are available in the college.

Department of Counseling and Higher Education

Natalya Lindo, Chair
Welch Complex 2
Phone: 940-565-2910
Web site: coe.unt.edu/counseling-and-higher-education/index.html

Program areas:

Counseling
Higher Education

Department of Educational Psychology

Anne Rinn, Chair
Matthews Hall, Room 316
Phone: 940-565-2093
Web site: coe.unt.edu/educational-psychology/index.html

Program areas:

Educational Psychology
Human Development and Family Studies
Special Education

Department of Teacher Education and Administration

Angie Cartwright, Chair
Matthews Hall, Room 206U
Phone: 940-565-2920
Web site: coe.unt.edu/teacher-education-and-administration/index.html

Program areas:

Curriculum and Instruction
Early Childhood Education
Educational Leadership
Education (including EC-6 and secondary/all-level teacher certification)
Language and Literacy Studies

University Core Curriculum requirements and degree requirements

The University of North Texas core curriculum is listed in the University Core Curriculum requirements in the Academic Policies and Procedures section of this catalog. Each program within the College of Education requires specific courses to satisfy particular degree requirements. Occasionally, a course required for a degree may also satisfy a requirement of the core. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree and may cause students to incur excess hour penalties. Students who have questions regarding degree requirements and course requirements should consult a degree program advisor in the Student Advising Office, Matthews Hall, Room 105.

Teacher certification

Students planning to teach in elementary early childhood-grade 6 (EC-6) must major in Education (see Department of Teacher Education and Administration).

Students planning to teach in secondary schools (6–12) must earn a major and degree in the academic discipline in which they plan to teach and take a minor in secondary education to qualify for a teaching certificate. Students should check with the appropriate department for degree requirements.

The State of Texas Standard Teaching Certificate requires completion of an approved four-year degree program, passing of the appropriate TExES state examinations and clearance on a criminal history check. Students must meet all prerequisite requirements and apply for admission to the teacher education program prior to taking education courses. Continuation in the teacher education program is contingent upon meeting programmatic benchmarks and successful progress in teacher education courses.

A minimum of 12 semester hours must be completed in residence before a recommendation from UNT is made for any teaching certificate. For the University of North Texas to recommend an undergraduate student for teacher certification that student must have successfully (1) completed an approved teacher preparation program; (2) completed clinical teaching, or residency including attendance at required seminars; and (3) passed all required content and supplemental certification exams of the Texas Examinations of Educator Standards (TExES), as applicable to their certification area.

Access to register for Texas teacher certification exams (TExES) is only granted to students who have been formally admitted to the Teacher Education program at UNT and have met practice exam requirements set by the TExES Success Office. Teacher candidates (who have been admitted to TEd) must meet TExES practice and real exam requirements in order to complete early field and/or clinical teaching. Information about certification exam requirements and deadlines will be communicated to candidates upon formal admission to the Teacher Education Program through the Welcome to TExES email sent by the TExES Success Office. It is the student's responsibility to review the information contained in that email.

Contact the TExES Success Office in Matthews Hall 208 at 940-369-8601 or COE_TSO@unt.edu for information about TExES Exams, TEAL account setup, and for information and study resources for your actual certification exams.

Students who have completed all certification requirements must apply for certification upon graduation through their online TEAL Educator account (see www.tea.state.tx.us).

Certificates offered

The awarding of teaching certificates is a function of the Texas Education Agency (TEA) under the authority of the State Board for Educator Certification (SBEC) and is contingent upon a recommendation by the UNT College of Education. The College of Education is authorized to recommend students who successfully fulfill all state and program requirements for the chosen teaching certificate in the following areas:

Early Childhood through Grade Six (certifies to teach grades EC–6)

- EC–6 Core Subjects with Science of Teaching Reading and ESL Supplemental
- EC–6 Core Subjects with Science of Teaching Reading and Bilingual Education Supplemental – Spanish (Grades EC-12)
- EC-6 Core Subjects with Science of Teaching Reading and EC-12 Special Education Specialist

Standard Secondary (certifies grades 6–12) and All-Level (EC–12)

At the time this catalog went to press, UNT offers bachelor's degrees that can be used to meet the requirements for the following secondary and all-level teacher certifications:

- Art EC-12
- Chemistry 7-12
- Computer Science 8-12
- English language arts and reading 7-12
- Family and consumer sciences 6-12
- History 7-12
- Human development and family studies 8-12
- Journalism 7-12
- Life science 7-12
- Mathematics 7-12
- Music EC-12
- Physical sciences 6-12
- Physics/Mathematics 7-12
- Science 7-12
- Social studies 7-12
- Speech 7-12
- Theatre-EC-12

Although teacher certification programs share many commonalities, what applies to one certificate or grade level is not necessarily applicable to another. Also, changes to existing teacher standards, content areas and certificate levels continue to be made by the State Board for Educator Certification.

Students are encouraged to schedule an appointment with an advisor in the Educator Preparation Office, Matthews Hall, Room 218, or check online at coe.unt.edu/educator-preparation-office/index.html for the current information regarding specific certificate requirements and any pending changes.

Admission to the Teacher Education (Ted) Program

To be eligible for admission, students must have:

- Completed a minimum of 60 semester hours (See University Core Curriculum in the Degree Requirements and Graduation page of this catalog). Programs leading to teacher certification require specific courses contained in parts of the University Core Curriculum to satisfy particular degree requirements. Students should consult degree program advisors for best choices in the core
- A 2.75 UNT GPA
- A 2.75 Overall GPA (includes all courses transferred to UNT, plus all courses taken at UNT)

- A 2.75 Teaching GPA
- A 2.75 Core GPA (Only required for students seeking Core Subjects EC-6 certification)
- TSI Complete Status, or have appropriate exam scores on either the ACT or SAT
- Submit an application to the UNT Teacher Education (TEd) Program. To apply, contact the UNT Educator Preparation Office, 940-565-4226; Matthews Hall, Room 218; or visit Educator Preparation Office | University of North Texas for details.

Field Experience Requirements

To be eligible for a clinical practice placement for both early field experiences and clinical teaching, students are responsible for applying the semester BEFORE by completing the Clinical Practice Application. Dates for the Clinical Practice Application are listed on the Clinical Practice Office webpage. Applications must be submitted by the designated deadline. For more information, please contact the Clinical Practice Office via email at COE-ClinicalPractice@unt.edu.

Early Field Experience or Observations:

Teacher candidates must complete a minimum of 50 hours of early field experiences before they can continue on to Clinical Teaching or Residency. Those hours will be competed in conjunction with a UNT course but located at a local School District partner. Candidates must be actively engaged in instructional activities while in their early field experience placement.

Residency – For Elementary EC-6 candidates only

Teacher candidates enrolled in any Core Subjects EC-6 certification track have the opportunity to participate in UNT's Residency Program. The UNT Teacher Residency Program is an innovative, year-long, paid, classroom-based experience that allows aspiring educators to learn through hands-on teaching. Residents are paired with experienced host teachers in partner school districts, gaining valuable real-world experience while receiving guidance and support from UNT faculty, site coordinators, and field supervisors. UNT's Residency program can only be started in a fall semester. Candidates interested in completing a Residency field experience must apply the spring before and will participate in a rigorous in-person interview process.

Candidates participating in the UNT Residency program will complete programmatic benchmarks and log 750 hours of co-teaching and instructional activities during the year-long residency. Participation in the UNT Residency program makes a candidate eligible for an Enhanced Teaching Certificate with the Texas Education Agency. More information is available on the COE Clinical Practice Website here: https://coe.unt.edu/educator-preparation-office/clinical/pathways/index.html

Clinical Teaching – Semester or Year Long

EC-6, secondary and all-level teacher candidates must complete Clinical Teaching (6 SCH) with a grade of P (Pass) for both courses to be recommended for their standard teaching certificate. Clinical teaching requirements may include attendance at required non-credit seminars.

Clinical Teaching is a full-time, 5-day-per-week, supervised teaching experience in a school district classroom. Teacher candidates must attend their placement for 100% of the school day. Clinical Teaching can only be completed during long (Fall or Spring) semesters and should be the last semester before the intended graduation. Over the course of your clinical teaching (either year-long or semester) you must log 490 hours of instructional activities in your placement.

Clinical Teaching may not count as full-time status for financial aid purposes, depending on student-specific awards. Therefore, the student should plan ahead and consult UNT Student Accounting sfs.unt.edu before they intend to apply for Clinical Teaching to verify what financial aid will be available to them during the clinical teaching semester.

To be eligible to begin clinical teaching or residency, students must meet the following requirements:

- Have been admitted to and accepted their admission offer to the UNT Teacher Education (TEd) Program
- Must be in residence at UNT and have earned at least 6 semester hours of resident credit in education at UNT

For EC–6 clinical teachers:

- Have completed all prerequisites and have a C or better in all courses in the education major and any applicable certification-specific courses for bilingual and special education candidates; exclusive of student teaching and EDEE 4890 (as required for students seeking any EC–6 certification)
- Have a minimum GPA of 2.75 in each area: UNT core, the education major and any applicable certification-specific courses for bilingual and special education candidates. No courses taken during the clinical teaching term/semester can be used to determine eligibility to clinical teach
- Have passed all actual TExES exams required during each Block semester

For secondary and all-level clinical teachers:

- Have completed all the required coursework in the teaching field
- Have completed all prerequisites and have a grade of C or better in all education courses (DFST, EDCI, EDEC, EDEE, EDRE, EDUC, etc.)
- Have a minimum GPA of 2.75 in each area (academic major and education/pedagogy courses) and in all college work completed at UNT, as well as a cumulative GPA of 2.75 for all colleges attended
- Have passed all actual TExES content and any applicable supplemental exams required for their certificate (This does not include the TExES Pedagogy and Professional Responsibilities or T-TEP Assessment)

Educator Preparation Program Appeal Process

Students not meeting eligibility requirements for admission to TEd or to Clinical Teaching may file an appeal with the Educator Preparation Office. To initiate an appeal, a student must complete the Educator Preparation Program Appeal Form on the EPO website: https://coe.unt.edu/educator-preparation-office/index.html. The student completes the application and attaches the required materials and documents along with their appeal statement.

TExES Certification Exams

TExES Practice Exam Requirements

Before taking any official certification exam, all teacher candidates must complete a practice exam and achieve the minimum required score to receive test approval. For certification areas that do not have an official practice exam, candidates are required to complete an alternative assignment determined by the TExES Success Office in coordination with program faculty. Test approval will not be granted until the required practice exam or alternative assignment has been completed, verified, and meets the established score benchmarks. Practice exam requirements, options for completion, and information about deadlines will be communicated to students upon formal admission to the Teacher Education Program through the Welcome to TExES email sent by the TExES Success Office. It is the student's responsibility to review the information contained in that email.

Exam Schedule and Deadlines

All teacher candidates must adhere to the established exam schedule and deadlines to ensure steady progress toward certification. Candidates are required to complete all designated certification exams prior to beginning Clinical Teaching, Residency, or Internship experiences. Candidates should review their program's exam timeline each semester to remain aware of required benchmarks and testing deadlines. Failure to meet these deadlines may result in delays in program progression or placement.

Candidates who do not meet required exam benchmarks or deadlines as outlined in their program's exam schedule will be subject to additional review by the TExES Success Office and their program faculty advisor. Depending on the nature of the deficiency, candidates may be required to:

- Complete a TExES Individual Support Plan (ISP) to address areas of need to retake a failed certification exam

- Delay progression to the next semester, Clinical Teaching, Residency, or Internship until all exam requirements are met

EC-6 candidates must follow an established testing sequence with set deadlines throughout Blocks A, B, and C. While candidates may progress from Block A to Block B after attempting (but not necessarily passing) their required exam(s), they must earn a passing score on all required Block A and Block B exams by the end of Block B (or Residency 1) to progress to Block C (or Residency 2). Candidates must have passed all required certification exams by the end of Clinical Teaching to be eligible for recommendation.

Secondary and All-Level candidates must pass all content and any applicable supplemental TExES exams to be eligible to teach clinically. Candidates must pass the TExES Pedagogy and Professional Responsibilities or T-TEP Assessment by the end of Clinical Teaching to be eligible for recommendation.

A minimum of 12 semester hours must be completed in residence before a recommendation from UNT is made for any teaching certificate.

Exam Retake Policy

Candidates who do not pass their official certification exam(s) will be required to complete additional preparation and an individualized TExES Individual Support Plan (ISP) before receiving approval to retest. Required remediation activities will be determined by the TExES Success Office and communicated directly to the candidate after reviewing the exam score report and any prior exam attempts.

Eligibility for Teacher Certification and Recommendation

Teaching certificates are granted by the Texas Education Agency (TEA) under the authority of the State Board for Educator certification (SBEC). Completion of the bachelor's degree and the required education courses does not guarantee certification by the TEA. In order to be recommended by UNT for a standard teaching certificate, students must:

- Be admitted to the UNT Teacher Education (TEd) Program and meet all state and program requirements including coursework with acceptable grades and GPAs
- Complete and pass all clinical practice requirements including early field experiences and clinical (student) teaching and be recommended by the university field supervisor and cooperating teacher/s
- Earn the required Bachelor's Degree
- Pass all Texas Examinations of Educator Standards (TExES) teacher certification exams
- Apply to the Texas Education Agency to be certified after all requirements are met and the bachelor's degree is posted on the transcript
- Complete fingerprinting. (All first-time applicants must be fingerprinted by the TEA-authorized entity and clear a national criminal background check)

Centers and clinics

The Office for Research and Consulting offers services to graduate students and faculty members in the College of Education. Services include assistance in research design, measurements and analysis of data using either the SPSS or SAS statistical packages. Assistance is also given in the interpretation of computer output and display of data in the form of tables or charts.

The Center for the Study of Educational Reform conducts research and serves as an information clearinghouse on educational reform initiatives. Created in 1990, the center has received grants to conduct a statewide survey on education reform and to conduct research on private and public school choice programs. The center also provides doctoral students with opportunities for dissertation research.

The Child and Family Resource Clinic (CFRC) is an interdisciplinary diagnostic and remedial clinic serving children, adults and families from the North Texas area. Services offered include interdisciplinary assessment, counseling, reading instruction, speech/language therapy and parent education classes. Fees for all services are based on a sliding scale. CFRC provides clinical training opportunities for graduate and undergraduate students in counseling, reading and speech/language/hearing.

Center for Young Children (CYC) is an accredited preschool program for young children ages 3 through 5. In addition, it serves as a model, an observation site for undergraduate and graduate students in fields related to young children. Research related to the care and education of young children is conducted by graduate students and faculty members from across the university.

Other centers are listed under the departments with which they are associated.

Endowed chairs

The Don A. Buchholz Endowed Chair in Community College Education in the Bill J. Priest Center for Community College Education began its service to two-year colleges and to the linkage between two- and four-year colleges and universities in the fall of 2000. While the chair and the center's primary function is to provide graduate education, research, and development activities for institutions, administrators and faculty in two-year colleges, the chair and center seek to improve the efficiency and effectiveness of the linkage between two- and four-year colleges and universities in the provision of education to students in post-secondary education.

The Meadows Chair for Excellence in Education was established and funded by the Meadows Foundation to attract distinguished scholars to the College of Education to teach, interact with faculty and students, and engage in scholarly work. Involving such scholars in the academic community should enhance professional development of the faculty, improve the quality of education for students and ultimately lead to a better-prepared Texas public school student body.

The Dr. Mike Moses Chair in Educational Administration was established in honor of a major figure in educational administration in Texas. Dr. Moses, for whom it is named, was Commissioner of Education for Texas, Deputy Chancellor for Systems Operations at Texas Tech University System, and Superintendent of the Dallas Independent School District. The chair position supports the chair holder's scholarship and also provides resources for building UNT's educational administration programs and bringing increased recognition to the graduate programs.

The Velma Schmidt Endowed Chair in Early Childhood Development was established and fully funded as a continuing memorial to Dr. Velma Schmidt and her work on behalf of young children. The holder of the chair is responsible for teaching and mentoring graduate and undergraduate students, collaboration with faculty and schools, participation in professional and scholarly activities, and providing leadership in the university and community.

Course listings

Independent study courses numbered 4900-4910 are open to advanced undergraduate students who are capable of developing a problem independently. A project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a term paper. These courses are not open to graduate students and are offered only when other required courses are unavailable. Prerequisites include consent of instructor and consent of the appropriate authority.

Individual courses of instruction are subject to change or withdrawal at any time and may not be offered each term/semester or every year. Any course may be withdrawn from current offers if the number of registrants is too small to justify conducting it.

Department of Counseling and Higher Education

Main Office
Welch Complex 2

Mailing address:
1155 Union Circle #310829
Denton, TX 76203-5017
940-565-2910
Fax: 940-565-2905
Web site: coe.unt.edu/counseling-and-higher-education/index.html

Faculty

The Department of Counseling and Higher Education provides programs designed to prepare professionals for leadership positions in community services, preschools, schools, colleges, universities and the public sector.

Consortium for Animal Assisted Therapy trains professionals and volunteers to work with their pets to facilitate the development of students with pet-assisted educational programs and to enhance the emotional well-being of people of all ages through positive human-animal interactions.

The Higher Education Development Initiative was established in 1972 with a focus to provide professional development activities to graduate students and to disseminate research findings through books, journals and monographs. The center expanded its goals to include support of the UNT Law Conference and comparative international studies.

The Center for Play Therapy exists to facilitate the unique development and emotional growth of children through the process of play therapy. The center carries out this commitment by providing graduate courses in play therapy, a play therapy summer institute, an annual play therapy conference, research, scholarships, a directory of play therapy training in the United States and Canada, a bibliography of play therapy literature, an international clearinghouse for play therapy literature, play therapy for children and training for parents.

The Counseling and Human Development Center (CHDC) and **The Child and Family Resource Clinic** (CFRC) are instructional facilities in which master's and doctoral-level counselors-in-training provide counseling under faculty supervision. These clinics serve individuals of all ages, couples, families and groups. Fees are based on a sliding scale, making counseling affordable to a segment of the population that otherwise might not have access to mental health services.

Counseling

Advising Office
Welch Complex 2
940-565-2910

Higher Education

Advising Office
Matthews Hall, Room 214
940-565-2045

Minors

Counseling minor

The counseling minor program is available to undergraduate students who are working toward a bachelor's degree. Students must check with their academic advisors to have their minor program approved. The interpersonal skills gained in this program may be applied to a variety of employment settings within the professions related to health and human services. A minor in counseling also provides students with a background that serves as a strong foundation when applying to master's degree programs in counseling and related fields.

A minimum of five counseling courses are offered each fall and spring term/semester. At least one section of the two introductory courses (COUN 2610 and COUN 3620) is offered each fall and spring term/semester. There are minimal courses offered during the summer.

Requirements:

A counseling minor requires 18 hours of coursework.

- COUN 2610 - Principles of Counseling I
- COUN 3620 - Principles of Counseling II

12 hours from

- COUN 2620 - Diversity and Cultural Awareness
- COUN 3600 - Therapeutic Play
- COUN 3630 - Foundations of Career Planning and Development
- COUN 3640 - Group Process in Helping Relationships
- COUN 4620 - Interpersonal Skills in Helping Relationships
- COUN 4900 - Special Problems

Department of Educational Psychology

Main Office
Matthews Hall, Room 316

Mailing address:
1155 Union Circle, #311335
Denton, TX 76203-5017
940-565-4646
Fax: 940-565-2185
Web site: www.coe.unt.edu/educational-psychology

Anne Rinn, Chair

Faculty

Academic Support and Outreach Services

Two EPSY offices provide a variety of academic, research and outreach services to students, faculty and the community at large:

Office of Research Consulting

The EPSY **Office of Research Consulting (ORC)** supports the research needs of faculty and students across the UNT community by providing methodological and statistical advice on grants, research, dissertations and classwork. ORC is dedicated to enhancing the research atmosphere at UNT by improving statistical understanding of students and faculty, providing seminars and support on latest developments in data analysis and research methods, archiving publicly available national and international research data, and providing consulting on grant proposals and funded projects.

Office of Gifted and Talented

The **Office of Gifted and Talented** is committed to transforming potential into excellence through innovative educational opportunities, research and outreach. The Office aspires to serve the intellectual, academic, social and emotional needs of gifted children and adolescents in the greater North Texas area, and assist those who parent, teach and otherwise work with them. The office aspires to be a leading resource on giftedness, talent development and creativity that is known regionally, nationally and internationally.

Human Development and Family Science

Web site: www.coe.unt.edu/educational-psychology

Human development and family science provides students with a program of study and career opportunities in a selected emphasis area focusing on foundations in child and human development and/or family science. Emphasis areas include community and family services and individual and family development.

The program offers coursework leading to credentialing as a Certified Family Life Educator (CFLE) through the National Council on Family Relations or as an Early Intervention Specialist with the Texas Department of Assistive and Rehabilitative Services. Students interested in either credential should meet with their faculty advisor as soon as possible for a list of required coursework.

Degree/teacher certification plan

The **Human Development and Family Science** secondary teaching certificate is a specialized certificate encompassing a subset of content area standards (1, 2 and 3) from the composite certificate and credentialing to teach a corresponding subset of the discipline's courses.

The **Family and Consumer Sciences** secondary teaching certificate is a composite certificate with content area standards encompassing competencies from the full breadth of the discipline (content area standards 1–8) and credentialing to teach the full range of the discipline's courses.

The degree/teacher certification plan is the official document outlining the student's course of study. The student is responsible for initiating the degree/teacher certification plan process and should do so as soon as possible after being formally enrolled at the university.

Advising should be sought in the Student Advising Office. The student, with advisement, makes decisions relating to the program of study. The degree/teacher certification plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Degree/teacher certification plan processing takes four to six weeks. Students must make an appointment to review completed degree/teacher certification plans in Matthews Hall, Room 105.

Educational Psychology

Web site: www.coe.unt.edu/educational-psychology

Special Education

Web site: www.coe.unt.edu/educational-psychology

Special Education EC-12 certification is available in conjunction with the Bachelor of Science with a major in Education with EC–6 certification. See the Education, BS (offered by the Department of Teacher Education and Administration) for specific details.

Courses in special education leading to teacher certification credentials are also offered at the graduate level. See the *Graduate Catalog* for additional information.

Scholarships

The Department of Educational Psychology offers several scholarships designated for undergraduate students in human development and family science and for undergraduate students seeking a special education (K-12) certification. Applications can be found online at coe.unt.edu/scholarships/index. Deadlines for applications vary slightly with each academic year, with awards generally being announced in late spring. Check with the department office, Matthews Hall, Room 316, for additional scholarship information.

Degree plan

The degree plan is the official document outlining the students' course of study. The student is responsible for initiating the degree plan process and should do so as soon as possible after being formally enrolled at the university.

Career advising should be sought in the departmental office, Matthews Hall, Room 316. The student, with advisement, makes decisions relating to the program of study. The degree plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Students should have their degree plans updated the term/semester before graduation in Matthews Hall, Room 105.

Majors

Human Development and Family Science with a concentration in Individual and Family Development across the Lifespan, BS (non–teacher certification)

Graduates of the human development and family science program seek to enhance the well-being of individuals and families through research and community engagement. Individual and family development across the lifespan is one of the two non-certification concentrations offered.

Degree Requirements

The following requirements must be satisfied for a Bachelor of Science with a major in human development and family science with a concentration in individual and family development across the lifespan (non–teacher certification).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Education requirements.

Major requirements

Educational psychology core, 42 hours

It is recommended that students enroll in HDFS 1013, HDFS 1023, HDFS 2013, and HDFS 2042 during their first year in the program.

- EPSY 3013 - Reading and Understanding Research
- HDFS 1013 - Human Development
- HDFS 1023 - Assessment and Observation
- HDFS 2013 - Introduction to Human Development and Family Science Theories
- HDFS 2033 - Parenting
- HDFS 2042 - Professional Development in Human Development and Family Science
- HDFS 3113 - Infant and Child Development
- HDFS 3153 - The Impact of Culture on Individuals and Families
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 3533 - Families in Crisis
- HDFS 4011 - Pre-Internship
- HDFS 4023 - Internship
- HDFS 4133 - Adolescence and Emerging Adulthood
- HDFS 4323 - Family Law and Public Policy

Concentrations

Students must also complete course requirements for a concentration, chosen with the advice of a faculty member within the program area. Concentrations are available in Individual and Family Development Across the Lifespan or Community and Family Services.

Individual and family development across the lifespan, 21 hours

Required courses

- HDFS 2313 - Courtship and Marriage
- HDFS 4433 - Family Resource Management
- HDFS 4353 - Current Research in Family Science
- HLTH 2200 - Family Life and Human Sexuality

  or
- PSYC 4470 - Sexual Behavior
- PSYC 3480 - Adult Development and Aging
- TWO upper-level electives from the following departments/programs: AGER, ANTH, ASLP, COUN, EDSP, HDFS, HSML, PADM, PSYC, RHAB, SOCI, SOWK, WGST.

Electives

To complete the minimum of 120 hours for the degree.

Other requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.50 in the major, 2.0 GPA in UNT courses and 2.0 overall GPA is required for graduation (overall GPA includes all course work transferred in addition to those taken at UNT).
- Students who are interested in research and preparing for graduate studies are advised to take a research practicum and complete a senior thesis. Any student who is interested in research should meet with a faculty advisor early in the program to plan an appropriate minor and electives and to seek approval for choosing a senior thesis.
- Students majoring in human development and family science must contact the Student Advising Office, Matthews Hall, Room 105, to prepare their degree audits.

Internship information

Include one 3-hour unpaid internship (HDFS 4023) related to the student's selected emphasis area (see below). Students must complete a minimum of 150 clock hours to meet this requirement. Some students may be required to complete a second internship. Students should have senior status and have completed HDFS 4011 before beginning the internship. Liability insurance is required for all internship students. Permission to enroll in an internship and approval of the internship site are required. Students must have completed the following courses to be eligible for enrollment in internships related to:

Infants or toddlers

- HDFS 3113 - Infant and Child Development
- HDFS 3213 - Infant and Toddler Intervention and Education

Teaching young children (2 years–8 years)

- HDFS 4233 - Guidance of Children and Youth
- EDEC 4243 - Environmental Processes and Assessment

School-age care and programming

- HDFS 3123 - Child Development for Non-Majors
- HDFS 4133 - Adolescence and Emerging Adulthood

Adolescents

- HDFS 4133 - Adolescence and Emerging Adulthood

Administration and/or parent/family life education

- HDFS 4253 - Administration of Programs for Children, Youth and Families
- HDFS 4413 - Family Life Education

Child life

- HDFS 4213 - Child Life Seminar

Human Development and Family Science with a concentration in Community and Family Services, BS (non–teacher certification)

Graduates of the human development and family science program seek to enhance the well-being of individuals and families through research and community engagement. Community and family services is one of two non-certification concentrations offered.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in human development and family science with a concentration in community and family services (non–teacher certification).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Education requirements.

Major requirements

Educational psychology core, 42 hours

It is recommended that students enroll in HDFS 1013, HDFS 1023, HDFS 2013, and HDFS 2042 during their first year in the program.

- EPSY 3013 - Reading and Understanding Research
- HDFS 1013 - Human Development
- HDFS 1023 - Assessment and Observation
- HDFS 2013 - Introduction to Human Development and Family Science Theories
- HDFS 2033 - Parenting
- HDFS 2042 - Professional Development in Human Development and Family Science
- HDFS 3113 - Infant and Child Development
- HDFS 3153 - The Impact of Culture on Individuals and Families
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 3533 - Families in Crisis
- HDFS 4011 - Pre-Internship
- HDFS 4023 - Internship
- HDFS 4133 - Adolescence and Emerging Adulthood
- HDFS 4323 - Family Law and Public Policy

Concentrations

Students must also complete course requirements for a concentration, chosen with the advice of a faculty member within the program area. Concentrations are available in Community and Family Services or Individual and Family Development across the Lifespan.

Community and family services, 21 hours

Required courses

- HDFS 3213 - Infant and Toddler Intervention and Education
- HDFS 4253 - Administration of Programs for Children, Youth and Families
- HDFS 4413 - Family Life Education
- PADM 3010 - Foundations of Philanthropy and Nonprofits
- SOWK 4700 - Child Welfare Practice and Services
- TWO upper-level electives from the following departments/programs: AGER, ANTH, ASLP, COUN, EDSP, HDFS, HSML, PADM, PSYC, RHAB, SOCI, SOWK, WGST.

Electives

To complete the minimum of 120 hours for the degree.

Other requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.50 in the major, 2.0 GPA in UNT courses and 2.0 overall GPA is required for graduation (overall GPA includes all course work transferred in addition to those taken at UNT).
- Students who are interested in research and preparing for graduate studies are advised to take a research practicum and complete a senior thesis. Any student who is interested in research should meet with a faculty advisor early in the program to plan an appropriate minor and electives and to seek approval for choosing a senior thesis.
- Students majoring in human development and family science must contact the Student Advising Office, Matthews Hall, Room 105, to prepare their degree audits.

Internship information

Include one 3-hour unpaid internship (HDFS 4023) related to the student's selected emphasis area (see below). Students must complete a minimum of 150 clock hours to meet this requirement. Some students may be required to complete a second internship. Students should have senior status and have completed HDFS 4011 before beginning the internship. Liability insurance is required for all internship students. Permission to enroll in an internship and approval of the internship site are required. Students must have completed the following courses to be eligible for enrollment in internships related to:

Infants or toddlers

- HDFS 3113 - Infant and Child Development
- HDFS 3213 - Infant and Toddler Intervention and Education

Teaching young children (2 years–8 years)

- HDFS 4233 - Guidance of Children and Youth
- EDEC 4243 - Environmental Processes and Assessment

School-age care and programming

- HDFS 3123 - Child Development for Non-Majors
- HDFS 4133 - Adolescence and Emerging Adulthood

Adolescents

- HDFS 4133 - Adolescence and Emerging Adulthood

Administration and/or parent/family life education

- HDFS 4253 - Administration of Programs for Children, Youth and Families
- HDFS 4413 - Family Life Education

Child life

- HDFS 4213 - Child Life Seminar

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
HDFS 1013 - Human Development	3 hours	HDFS 1023 - Assessment and Observation	3 hours
HDFS 2033 - Parenting	3 hours	American History core	3 hours
American History core	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HDFS 2013 - Introduction to Human Development and Family Science Theories	3 hours	HDFS 2042 - Professional Development in Human Development and Family Science	2 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	HDFS Concentration	3 hours
Elective	3 hours	HDFS Upper Division elective	3 hours
Total	15 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
EPSY 3013 - Reading and Understanding Research	3 hours	HDFS 3113 - Infant and Child Development	3 hours
HDFS 3153 - The Impact of Culture on Individuals and Families	3 hours	HDFS 3423 - Family, School and Community	3 hours
HDFS 3313 - Interpersonal Relationships	3 hours	HDFS 3533 - Families in Crisis	3 hours
HDFS 4253 - Administration of Programs for Children, Youth and Families	3 hours	HDFS Concentration	3 hours
PADM 3010 - Foundations of Philanthropy and Nonprofits	3 hours	HDFS Upper Division elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
HDFS 3213 - Infant and Toddler Intervention and Education	3 hours	HDFS 4023 - Internship	3 hours
HDFS 4011 - Pre-Internship	1 hour	HDFS 4133 - Adolescence and Emerging Adulthood	3 hours
HDFS 4323 - Family Law and Public Policy	3 hours	HDFS 4413 - Family Life Education	3 hours
HDFS Concentration	3 hours	SOWK 4700 - Child Welfare Practice and Services	3 hours
HDFS Concentration	3 hours	Elective	3 hours
HDFS Concentration	3 hours		
Total	16 hours	Total	15 hours

Human Development and Family Science, BS (teacher certification)

Graduates of the human development and family science program with teacher certification seek to enhance the well-being of individuals and families through education and community engagement.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in human development and family science (teacher certification).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Education requirements.

Major requirements

Human development and family science certificate, 55 hours

- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- EDEC 3613 - Childhoods Across Time, Space and Place
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- HDFS 1013 - Human Development
- HDFS 1023 - Assessment and Observation
- HDFS 2033 - Parenting
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Child Development
- HDFS 3123 - Child Development for Non-Majors
- HDFS 3213 - Infant and Toddler Intervention and Education
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 4011 - Pre-Internship
- HDFS 4133 - Adolescence and Emerging Adulthood
- HDFS 4233 - Guidance of Children and Youth
- HDFS 4253 - Administration of Programs for Children, Youth and Families
- HDFS 4323 - Family Law and Public Policy
- HDFS 4413 - Family Life Education
- HDFS 4433 - Family Resource Management
- NUTR 1450 - Principles of Nutrition

Family and consumer sciences certificate, 64 hours

- ICON 3800 - Consumer Psychology
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- EDEC 4243 - Environmental Processes and Assessment
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Child Development
- HDFS 3123 - Child Development for Non-Majors
- HDFS 3313 - Interpersonal Relationships
- HDFS 4011 - Pre-Internship
- HDFS 4233 - Guidance of Children and Youth
- HDFS 4253 - Administration of Programs for Children, Youth and Families
- HDFS 4413 - Family Life Education
- HDFS 4433 - Family Resource Management
- HMGT 1420 - Food Sanitation
- NUTR 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 3700 - Hotel Operations
- MDSE 2650 - Textiles for Apparel
- MDSE 4250 - Product Development

Other course requirements, 3 hours

- LTEC 1100 - Computer Applications

Other requirements

Admission to teacher education

1. Junior standing (60 credit hours earned);
2. a 2.75 overall GPA (includes all transferred and UNT courses) and a 2.75 GPA in the core with all graded courses complete;
3. appropriate exam scores on either the ACT, SAT or Praxis Core: Academic Skills for Educators; (contact the Student Advising Office in Matthews Hall, Room 105, for further information on the exam requirement);
4. a rating of "Accepted" on the online admission interview questionnaire;
5. active enrollment at UNT and a completed or in-process degree audit in the College of Education Student Advising Office; and
6. a completed Application for Admission to Teacher Education submitted to the College of Education Student Advising Office once all requirements are complete.

Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or coe.unt.edu/student-advising for additional information.

Professional education requirements, 21 hours

Pedagogy, 12 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4840 - Instructional Strategies and Classroom Management

Reading/English/language arts, 3 hours

- EDCI 4060 - Content Area Reading

Internship (student teaching), 6 hours

- EDCI 4108 - Student Teaching in the Secondary School

- EDCI 4118 - Student Teaching in the Secondary School

Note

See "Student Teaching" in the College of Education general information section of this catalog.

Eligibility for teacher certification and endorsements

Teacher certification is a function of the State Board for Educator Certification. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by the agency. In order to receive recommendation for teacher certification through the University of North Texas, students must have:

- Successfully completed an approved teacher education program for the preparation of secondary teachers;
- Successfully completed student teaching, including attendance at appropriate seminars and passing a comprehensive teacher preparation examination; and
- Passed the content examination from the American Association of Family and Consumer Sciences.

Students completing course requirements for the Human Development and Family Science teacher certificate will be eligible to apply to the National Council of Family Relations for the Certified Family Life Educator credential. Students completing course requirements for the Family and Consumer Sciences teacher certificate will be eligible to apply to the American Association of Family and Consumer Sciences for the Certified Family and Consumer Sciences credential.

Grad Track Options

Human Development and Family Science, BS with grad track option leading to Educational Psychology, MS

Academically strong undergraduate students with a major or minor in human development and family science (HDFS) may apply for and be admitted to the master's in educational psychology while still undergraduates. Doing so allows them to finish first their bachelor's degree and then their master's program on an accelerated pathway. With departmental approval, and subject to the requirements of the accelerated master's degree (see below), four undergraduate courses are replaced with their graduate counterparts. These four graduate courses also count toward the 33 hours for the master's degree in educational psychology.

Admission requirements and program policies

Admission requirements

Students who have completed 75 credit hours of undergraduate coursework may apply for admission into the grad track program in educational psychology by submitting the following:

1. *Submission of official GRE scores is strongly encouraged but not required.*
2. At least two written letters of recommendation from individuals who can give evidence of the candidate's reading, critical thinking, writing and quantitative skills. These letters must be sent from the recommender, signed and on letterhead. Preference is given to letters from full-time EPSY faculty and/or the UNT faculty from whom the applicant has taken upper-division or graduate courses.
3. Resume or vita that includes educational and any professional experiences.
4. A personal statement (1–3 pages) stating the applicant's goals and rationale for applying to the desired degree concentration. Please describe any related job experiences or any relevant research and/or evaluation experiences.

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Program policies

Students with an overall GPA of 3.50 may apply to the program and to the graduate school for the grad track option, which includes 6 hours of undergraduate courses in human development and family science and up to 12 hours of graduate courses in educational psychology. Following successful completion of the undergraduate degree, students may transfer the 12 graduate hours into the MS with a major in educational psychology and concentrations in family policy and program administration or learning and development.

Students admitted into the grad track option must earn a grade point of 3.0 or higher in each of the four graduate courses taken. Full admission to the UNT graduate school is obtained upon completion of the undergraduate degree.

Program requirements

Students seeking a master's concentration in Family Policy and Program Administration will take the following courses in the grad track option:

- EPSY 5000 - Introduction to Educational Psychology
- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5413 - Family Relationships
- EPSY 5453 - Family Law and Policy

Students seeking a master's concentration in Learning and Development will take the following courses in the grad track option:

- EPSY 5000 - Introduction to Educational Psychology
- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5133 - Infant and Child Development
- EPSY 5143 - Advanced Adolescent Development

With department approval the following courses may be substituted based on course availability:

- EPSY 5210 - Educational Statistics
- EPSY 5250 - Grant Proposal Writing Techniques

All remaining courses for Human Development and Family Science with a concentration in Community and Family Services, BS (non–teacher certification), Human Development and Family Science, BS (teacher certification) or Human Development and Family Science with a concentration in Individual and Family Development across the Lifespan, BS (non–teacher certification) must be completed.

Human Development and Family Science, minor with grad track option leading to Educational Psychology, MS

A minor in human development and family science (HDFS) is suggested for students whose careers or graduate degree audits involve children and families, for students who desire enrichment in family life education and for students in pre-professional studies leading to careers in medicine and family law. A grad track minor in HDFS requires 18 semester hours, including 12 advanced hours. Students who choose HDFS as a minor must meet prerequisite requirements for courses.

Admission requirements and program policies

Admission requirements

Students who have completed 75 credit hours of undergraduate coursework may apply for admission into the grad track program in educational psychology by submitting the following:

1. *Submission of official GRE scores is strongly encouraged but not required.*
2. At least two written letters of recommendation from individuals who can give evidence of the candidate's reading, critical thinking, writing and quantitative skills. These letters must be sent from the recommender, signed and on letterhead. Preference is given to letters from full-time EPSY faculty and/or the UNT faculty from whom the applicant has taken upper-division or graduate courses.
3. Resume or vita that includes educational and any professional experiences.
4. A personal statement (1–3 pages) stating the applicant's goals and rationale for applying to the desired degree concentration. Please describe any related job experiences or any relevant research and/or evaluation experiences.

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Program policies

Students with an overall GPA of 3.50 may apply to the program and to the graduate school for the grad track option, which includes 6 hours of undergraduate courses in human development and family science and up to 12 hours of graduate courses in educational psychology. Following successful completion of the undergraduate degree, students may transfer the 12 graduate hours into the MS with a major in educational psychology and concentrations in research and evaluation, family policy and program administration, child life or learning and development.

Students admitted into the grad track option must earn a grade point of 3.0 or higher in each of the four graduate courses taken. Full admission to the UNT graduate school is obtained upon completion of the undergraduate degree.

Program requirements

Students seeking a master's concentration in family policy and program administration will take the following courses in the grad track option:

- EPSY 5000 - Introduction to Educational Psychology
- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5413 - Family Relationships
- EPSY 5453 - Family Law and Policy

Students seeking a master's concentration in learning and development will take the following courses in the grad track option:

- EPSY 5000 - Introduction to Educational Psychology
- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5133 - Infant and Child Development
- EPSY 5143 - Advanced Adolescent Development

Students seeking a master's concentration in research and evaluation will take the following courses in the grad track option:

- EPSY 5000 - Introduction to Educational Psychology
- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5123 - Human Development Across the Life Span
- EPSY 5350 - Foundations of PsychoEducational Measurement

With department approval the following courses may be substituted based on course availability:

- EPSY 5210 – Educational Statistics
- EPSY 5250 - Grant Proposal Writing Techniques

For the remainder of the minor requirements, please contact the Department of Educational Psychology.

All remaining courses for the Human Development and Family Science minor must be completed.

Minors

Human Development and Family Science minor

An 18-hour minor (12 of which are advanced hours) in human development and family science is suggested for students whose careers or degree audits involve children and families, for students who desire enrichment in family life education and for students in preprofessional studies leading to careers in medicine and family law. Students who choose human development and family science as a minor must meet prerequisite requirements for courses.

Department of Teacher Education and Administration

Main Office
Matthews Hall, Room 206

Mailing address:
1155 Union Circle #310740
Denton, TX 76203-5017
940-565-2920
Fax: 940-565-4952
Web site: coe.unt.edu/teacher-education-and-administration/

Curriculum and Instruction
Matthews Hall, Room 206
940-565-2920

Early Childhood Education
Matthews Hall, Room 206
940-565-2920

Educational Leadership
Matthews Hall, Room 206
940-565-2920

Post Baccalaureate Certification Programs
Matthews Hall, Room 119
940-369-8411

Language and Literacy Studies
Matthews Hall, Room 206
940-565-2920

Bilingual/ESL Certification Programs
Matthews Hall, Room 206
940-565-2920

Clinical Practice Office
Matthews Hall, Room 218
940-565-4226

Undergraduate Advising Office
Matthews Hall, Room 105
940-565-2736

Colleen Eddy, Chair

Faculty

The Department of Teacher Education and Administration seeks to improve educational practice through the generation of knowledge and to prepare education professionals who serve all students. Its focus is on the preparation of highly competent educators, researchers and administrators who employ current theory and research as they fill these important roles. The department also provides service to educational institutions, governmental agencies and practitioners at all levels.

Programs in Teacher Education are approved by the Texas Education Agency (1701 N. Congress Avenue, Austin, TX 78701 [www.tea.state.tx.us]).

The department offers teacher certification programs for both undergraduate and graduate students. Undergraduates seeking teacher certification in early childhood through grade six (EC–6) should enroll in the Bachelor of Science program with a major in education. Undergraduates seeking certification in all-level or secondary education receive a degree though the major department and add the required courses for teacher certification.

Students who have earned an undergraduate degree from an accredited university may have their undergraduate transcript evaluated to develop a post-baccalaureate certification plan. Post-baccalaureate students must apply for admission and be admitted to the Toulouse School of Graduate Studies prior to enrolling in any classes (see the *Graduate Catalog* for admission requirements).

Degree/certification plan

The degree/certification plan is the official document outlining the student's course of study. The student is responsible for initiating the degree/certification plan process and should do so as soon as possible after being formally enrolled at the university and prior to the first term/semester in teacher education.

Advising should be sought in the Student Advising Office. The student, with advisement, makes decisions relating to the program of study. The degree/certification plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Degree/certification plan processing takes four to six weeks. Students must make an appointment to review completed degree/certification plans in Matthews Hall, Room 105. Any changes in degree/certification plans must be approved by the Advising Office.

Certification options

The department offers several options leading to educator certification, including:

- EC–6 Core Subjects with Science of Teaching Reading and ESL Supplemental
- EC–6 Core Subjects with Science of Teaching Reading and Bilingual Education Supplemental – Spanish
- EC-6 Core Subjects with Science of Teaching Reading and Special Education EC-12

Scholarships

The University of North Texas is committed to excellence in all academic programs. In keeping with this commitment the university offers a variety of scholarships and awards to continuing students and to exceptional entering freshmen and transfer students. The university has two categories of competitive academic scholarships: general and departmental. Information on general scholarships may be obtained from Financial Aid and Scholarships.

Departmental scholarships are listed on the department's web page.

Admission, Review and Retention (ARR) Committee

The ARR Committee reviews referrals made by faculty and determines a course of action. The ARR Committee also reviews student appeals and determines an appropriate course of action regarding changes in the student's course of study. Any instructor in the College of Education has the right and responsibility to refer any student to the ARR Committee if that instructor has a concern about a student's academic progress, behavioral characteristics or communication skills that indicates potential problems in school settings.

Center for Young Children

The Center for Young Children (CYC) is an accredited preschool program for young children ages 3 through 5. In addition, it serves as a model, an observation site for undergraduate and graduate students in fields related to young children. Research related to the care and education of young children is conducted by graduate students and faculty members from across the university.

Secondary Education

Secondary Education, in cooperation with other schools and departments, offers a complete curriculum of teacher preparation.

Undergraduate professional development courses in secondary education constitute a minor for bachelor's degree programs in College of Liberal Arts and Social Sciences, G. Brint Ryan College of Business or College of Public Affairs and Health Sciences. The program of studies offered through Secondary Education meets all current professional development requirements for Texas teacher certification.

Individuals interested in pursuing certification in math or science teaching at the secondary level may wish to pursue a minor through the Teach North Texas program. See Teach North Texas in the College of Science section of this catalog.

Education, BS

Students completing the requirements for the undergraduate degree will receive the Bachelor of Science with a major in education. The undergraduate program requires a minimum of 120 semester hours.

This degree centers on the professional interests and personal curiosity of students who are studying to be teachers. There are opportunities in this degree for students to choose courses based on their interests and their goals for their career as teachers. It is the intention of this degree to set beginning teachers/future educators on a life-long career path of professional learning.

The last three long semesters of this degree are structured using a block model and must be taken in sequence. Block A signals the entry into the professional development sequence, and students must be admitted to Teacher Education (Ted) to enroll in Block A courses. Students must be in good standing to continue into Block B and C.

Students make decisions about which specialization area they want to work inside; their first course in their specialization is taken prior to Block A.

Block A is the first semester of this three semester sequence; some courses contain required field experiences. Students take two more courses associated with their specialization area in Block A. Block B is the second semester of the sequence and involves two days each week of coursework and two days of field experience working in classrooms at a local school district or community partnering site. In addition, students are expected to attend and participate in regular seminars associated with the field experiences. The final semester, Block C, is the Clinical Teaching semester. Students are expected to participate in 14-weeks of full-time student teaching plus attendance at a weekly seminar. As per State regulations, students must participate in an "intensive start of school field experience" in either Block B or C.

All courses in Blocks A, B, and C are organized into cohorts and students must enroll in courses with their associated cohort.

Students seeking certification as a bilingual or special education teacher will not participate in specializations. Rather, specific coursework prepares them for their respective certifications.

NOTE: As of 12/23/2020, UNT discontinued admissions to Grade 4-8 certification programs. All students admitted to 4-8 programs prior to 12/23/2020 will be able to complete their certification program as described in the Catalog under which they were admitted.

Degree requirements

Students must be admitted to the Teacher Education (TEd) Program before enrolling in courses in Blocks A and B and must be admitted to clinical teaching before enrolling in Block C courses. In addition, students must maintain a 2.75 GPA in various sub-areas of their degree audit (i.e., university core, academic major, and education courses) in order to be eligible for Blocks A, B, and C. Students seeking EC–6 teacher certification must also earn grades of C or above in all required courses on their degree audit. Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or coe.unt.edu/student-advising for details and to apply for admission to the Teacher Education program.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be 3000 or 4000 level courses, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Education degree requirements .

The department recommends specific courses (best choices) in some categories. Students may elect to take other courses listed under the University Core Curriculum to fulfill these requirements; however, doing so may add hours to the degree.

Students should consult with their advisors to determine how best to meet the core requirements.

Major requirements

Early Childhood through Grade Six (EC–6) core subjects teacher certification options

Students may prepare for the following certifications:

(a) **Core subjects EC-6 with Science of Teaching Reading and ESL Supplemental.**
(b) **Core subjects EC-6 with Science of Teaching Reading and Bilingual Education Supplemental - Spanish (Grades EC-12).**
or
(c) **Core subjects EC-6 with Science of Teaching Reading with EC-12 Special Education.**

Students should consult with their advisors to determine the best sequence for taking core courses, prerequisite courses, major courses and courses in the blocks. Part of this degree is the last three long semesters of the professional development sequence (called Blocks: A, B, and C). Courses in Block A may/not require field experiences at local early childhood education centers, elementary schools and partnering community organizations. Additionally, the final two long semesters (Blocks B & C) involve full-day internship experiences at local schools.

Core subjects EC-6 with Science of Teaching Reading and ESL Supplemental

- COUN 2600 - Culture-Centered Social and Emotional Learning in the Schools
- EDBE 2050 - Teaching Multilingual Students
- EDBE 3050 - Teaching English as an Additional Language
- EDCI 4010 - Classrooms as Communities
- EDEC 1010 - Learning With and From Children
- EDEE 1010 - Introduction To Teaching
- EDEE 3330 - Teaching Science EC-6
- EDEE 3340 - Teaching Social Studies EC–6
- EDEE 3350 - Teaching Mathematics EC-6
- EDEE 4891 - Clinical Teaching Seminar
- EDLE 2010 - How Schools Work
- EDRE 3350 - Early Language and Literacy Development
- EDRE 4850 - Teaching the Tools and Practices of Reading Across the Curriculum
- EDRE 4860 - Teaching the Tools and Practices of Writing across the Curriculum
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- EPSY 2010 - How People Learn
- LTEC 2600 - Digital Tools in Education

Early Childhood Education specialization

Children's experiences during their early years are foundational to build their social and emotional well-being and academic learning. Understanding young children's ways of being and knowing is essential to creating environments and nurturing relationships in the classroom that sustain children's cultures.

There are three courses required for this specialization:

- EDEC 3613 - Childhoods Across Time, Space and Place (taken prior to the start of Block A)
- EDEC 3700 - Pedagogies and Practices of Early Childhood (taken during Block A and will serve as the centering course)
- EDEC 3750 - Young Children in Schools, Families and Communities (taken during Block A and will include a field component)

Inclusive Education specialization

This specialization offers future educators a deep dive into building inclusive education, opportunities, equity and access in partnership with students with dis/abilities and their families.

Note: The completion of this specialization is not the same as completing the program for special education certification. Students interested in a special education certification should see their advisor.

There are three courses required for this specialization:

- EDSP 2010 - Dis/Ability, Community and Culture (taken prior to the start of Block A)
- EDSP 3210 - Educational Aspects of Exceptional Learners (taken during Block A and has a service-learning component)
- EDSP 3410 - Developmental Disabilities and Autism: Identification and Intervention (taken during Block A and serves as the centering course)

Interdisciplinary Studies in Education specialization

School curriculum and instruction often derives its content and methods from disciplines in the social and physical sciences. In this specialization, students will consider how disciplines exert control over school curriculum, to whose advantage and disadvantage, and the benefits and drawbacks of interdisciplinary, transdisciplinary, and multidisciplinary studies. A definition of interdisciplinary understanding is to "...integrate knowledge and modes of thinking from two or more disciplines (or well-established fields of study) in order to create products, raise questions, solve problems, and offer explanations of the world around them in ways that would not have been possible through single disciplinary means" (adapted from Boix Mansilla & Gardner, 1996).

This specialization offers considerable flexibility. There is one required course for this specialization:

- EDEE 3300 - Interdisciplinary Studies in Education (taken during Block A, has a field experience component and serves as the centering course)
- Two other courses are selected by the future educator from the other specializations (Early Childhood Education, Inclusive Education, Interdisciplinary Studies in Education, and others, as they are available).

Core subjects EC-6 with Science of Teaching Reading and Bilingual Education Supplemental - Spanish (Grades EC-12)

- COUN 2600 - Culture-Centered Social and Emotional Learning in the Schools
- EDBE 2050 - Teaching Multilingual Students
- EDBE 3050 - Teaching English as an Additional Language
- EDBE 3060 - Biliteracy in Bilingual Classrooms
- EDBE 3600 - Dual Language Bilingual Education: Programs, Policy and Practice
- EDBE 3650 - Teaching and Learning in the Bilingual Classroom
- EDCI 4010 - Classrooms as Communities
- EDEC 1010 - Learning With and From Children
- EDEE 1010 - Introduction To Teaching
- EDEE 3330 - Teaching Science EC-6
- EDEE 3340 - Teaching Social Studies EC–6
- EDEE 3350 - Teaching Mathematics EC-6
- EDEE 4891 - Clinical Teaching Seminar
- EDLE 2010 - How Schools Work
- EDRE 3350 - Early Language and Literacy Development
- EDRE 4850 - Teaching the Tools and Practices of Reading Across the Curriculum
- EDRE 4860 - Teaching the Tools and Practices of Writing across the Curriculum
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- EPSY 2010 - How People Learn
- LTEC 2600 - Digital Tools in Education
- SPAN 3080 - Spanish Language Proficiency for Educators

Core subjects EC-6 with Science of Teaching Reading with EC-12 Special Education

- COUN 2600 - Culture-Centered Social and Emotional Learning in the Schools
- EDBE 2050 - Teaching Multilingual Students
- EDBE 3050 - Teaching English as an Additional Language
- EDCI 4010 - Classrooms as Communities
- EDEC 1010 - Learning With and From Children
- EDEE 1010 - Introduction To Teaching
- EDEE 3330 - Teaching Science EC-6
- EDEE 3340 - Teaching Social Studies EC–6
- EDEE 3350 - Teaching Mathematics EC-6
- EDEE 4891 - Clinical Teaching Seminar
- EDLE 2010 - How Schools Work
- EDRE 3350 - Early Language and Literacy Development
- EDRE 4850 - Teaching the Tools and Practices of Reading Across the Curriculum
- EDRE 4860 - Teaching the Tools and Practices of Writing across the Curriculum
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4320 - Educational Assessment and Evaluation of Exceptional Learners
- EDSP 4330 - Advanced Educational Strategies for Exceptional Learners
- EDSP 4340 - Classroom and Behavioral Management Strategies for Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- EDSP 4360 - Transition Education and Services for Exceptional Learners
- EPSY 2010 - How People Learn
- LTEC 2600 - Digital Tools in Education

Internship (student teaching), 6 hours

Students seeking certification in (a) core subjects EC-6 with Science of Teaching Reading and ESL Supplemental or (b) core subjects EC-6 with Science of Teaching Reading and Bilingual Education Supplemental - Spanish (Grades EC-12) will enroll in the following courses:

- EDEE 4101 - Clinical Teaching
- EDEE 4102 - Clinical Teaching

Students seeking certification in core subjects EC-6 with Science of Teaching Reading with EC-12 Special Education will enroll in the following courses:

- EDEE 4102 - Clinical Teaching
- EDSP 4110 - Student Teaching in Special Education

Minor requirements

There is no minor for this degree.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Education about which courses work well with areas of interest, specialization areas and/or certification path.

Other requirements

Admission to elementary teacher education

For admission to elementary teacher education, a student must have:

- Completed a minimum of 60 semester hours;
- 2.75 UNT GPA;
- 2.75 overall GPA (includes all transferred and UNT courses);
- Appropriate exam scores on either the ACT or SAT, or TSI Complete; (contact the Student Advising Office in Matthews Hall, Room 105, for further information on the exam requirement); and
- Receive a score of "Accepted" on the Admissions Interview Questionnaire.

Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or https://coe.unt.edu/student-advising for details on the application process. See the College of Education's calendar for application deadlines.

Students seeking EC–6 teacher certification must also earn grades of C or above in all required courses on their degree audit.

Admission to Clinical Practice

In order to be accepted into Clinical Practice, students must:

- Apply to Clinical Practice during Block A but before Block B (see College of Education's calendar for application deadlines). Clinical Practice Application periods are posted on the Clinical Practice Office (calendar: https://coe.unt.edu/educator-preparation-office/clinical);
- Have completed all TX Common Core courses (42 hours) with no grade lower than a C;
- Have at least a 2.75 GPA in the academic major and for overall UNT GPA, with no grade lower than a C in the academic major;
- Have at least an average of 2.75 GPA in Common Core, Education major, teaching field courses and pedagogy (education) courses;
- Have a grade of at least a C in all courses required for graduation;
- Except for Block A courses, have all required courses completed (except for those in Blocks B and C);
- Submit a Statement of Qualification Form prior. Forms are available here: https://coe.unt.edu/educator-preparation-office/clinical. This form must be approved by your academic advisor prior to submission; and
- Have completed a UNT-sponsored TExES Certification Practice Exams for all certification areas relevant to the degree plan. Practice exams are scheduled by the TExES Success Office. Information about the practice exams is located at https://coe.unt.edu/educator-preparation-office/texes.

Contact the Educator Preparation Office, Matthews Hall, Room 119; 940-369-8411; or https://coe.unt.edu/educator-preparation-office for additional information.

Admission to secondary or all-level teacher education

For admission to secondary or all-level teacher education, a student must have:

- Junior standing (60 credit hours earned);
- 2.75 UNT GPA;
- 2.75 overall GPA (includes all transferred and UNT courses);
- Appropriate exam scores on either the ACT, SAT or Praxis Core: Academic Skills for Educators; (contact the Student Advising Office in Matthews Hall, Room 105, for further information on the exam requirement);
- A rating of "Accepted" on the online Admission Interview Questionnaire (for all students except all-level art and music);
- Active enrollment at UNT and an official degree audit on file in the College of Education Student Advising Office; and
- A completed application for admission to Teacher Education submitted to the College of Education Student Advising Office once all requirements are complete.
- Students must be admitted to teacher education before enrolling in most education classes. In addition, students must maintain a 2.75 GPA in various sub-areas of their degree audit (i.e., teaching field and education/pedagogy courses) to proceed with early field experience and student teaching.

Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or https://coe.unt.edu/student-advising for additional information.

Eligibility for recommendation for Teacher Certification

Teacher certification is granted by the Texas Education Agency (TEA), not UNT. As an approved State of Texas Educator Preparation Program, UNT can only recommend students for certification. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by TEA. In order to be recommended for teacher certification through the University of North Texas, students must have:

- Successfully completed an approved teacher education program for the preparation of early childhood, secondary or all-level teachers;
- Successfully completed clinical teaching, including attendance at required seminars; and
- Passed the TExES EC-12 Pedagogy and Professional Responsibilities (PPR) and all required content and supplemental certification exams of the Texas Examinations of Educator Standards (TExES), as applicable.

Access to register for Texas teacher certification exams (TExES) is only granted to students who have been formally admitted to the Teacher Education program at UNT. Teacher candidates (who have been admitted to TEd) must take UNT-sponsored TExES practice exams prior to the start of Block B courses. Practice exams are free of charge.

The TExES Practice exams are offered four times in each long semester and twice during the summer.

Contact the TExES Success Office in Matthews Hall 208 at 940-369-8601 or COE_TSO@unt.edu for information about registering for your practice TExES Exams, TEAL account setup and for information and study resources for your actual certification exams.

Four-year degree plan (example)

The following four-year plan is **one** example (EC-6 with ESL) of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
EDEC 1010 - Learning With and From Children	3 hours	EDEE 1010 - Introduction To Teaching	3 hours
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Social and Behavioral Sciences core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
EDLE 2010 - How Schools Work	1.5 hours	COUN 2600 - Culture-Centered Social and Emotional Learning in the Schools	1.5 hours
EPSY 2010 - How People Learn	3 hours	EDBE 2050 - Teaching Multilingual Students	3 hours
Component Area Option A core	3 hours	LTEC 2600 - Digital Tools in Education	3 hours
Government/Political Science core	3 hours	Component Area Option B core	3 hours
Language, Philosophy and Culture core	3 hours	Government/Political Science core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	16.5 hours	Total	16.5 hours

Year 3

Semester 1		Semester 2	
EDBE 3050 - Teaching English as an Additional Language	3 hours	EDEC 3700 - Pedagogies and Practices of Early Childhood	3 hours
EDEC 3613 - Childhoods Across Time, Space and Place	3 hours	EDEC 3750 - Young Children in Schools, Families and Communities	3 hours
Elective	3 hours	EDEE 3330 - Teaching Science EC-6	3 hours
Elective	3 hours	EDEE 3340 - Teaching Social Studies EC–6	3 hours
Elective	3 hours	EDRE 3350 - Early Language and Literacy Development	3 hours
Elective	3 hours		
Total	18 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
EDCI 4010 - Classrooms as Communities	3 hours	EDEE 4102 - Clinical Teaching	3 hours
EDEE 3350 - Teaching Mathematics EC-6	3 hours	EDEE 4891 - Clinical Teaching Seminar	3 hours
EDEE 4101 - Clinical Teaching	3 hours	EDRE 4850 - Teaching the Tools and Practices of Reading Across the Curriculum	3 hours
EDSP 4350 - Strategies to Support Diverse Learners in General Education	3 hours	EDRE 4860 - Teaching the Tools and Practices of Writing across the Curriculum	3 hours
Total	12 hours	Total	12 hours

Secondary and All-level (EC-12) Education Teacher Certification minor (for BA, BS)

Teacher certification is granted by the Texas State Board for Educator Certification (SBEC). UNT is authorized to recommend secondary and all-level teacher certification for students who successfully fulfill all state and program requirements for the chosen teaching certificate in the following content areas:

- Secondary Content Areas: chemistry; dance; English language arts and reading; family and consumer sciences; history; hospitality, nutrition and food sciences; human development and family studies; journalism; life science; mathematics; physical sciences; physics/mathematics; science; social studies; and speech.
- All-Level (EC-12) Content Areas: art, French, German, music, physical education, Spanish and theatre.

Although teacher certification programs share many commonalities, course and program requirements will vary by chosen content area. Standards for teaching certificates are continually reviewed by the SBEC, meaning that requirements can and do change. Therefore, it is impractical to list certification requirements for individual content areas in this catalog. Consult your advisor for specific requirements.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 hours must be advanced, and fulfillment of degree requirements for the Bachelor of Arts or Bachelor of Science degree as specified in the University Core Curriculum in the Academic Policies and Procedures section of this catalog and all College of Education requirements. Students seeking teacher certification in secondary or all-level education must also meet all degree requirements of the college responsible for awarding the degree for their selected major.

Major requirements

See your degree program advisor for an individual degree audit.

Other course requirements

See individual degree audit.

Minor requirements

Pedagogy, 12 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4840 - Instructional Strategies and Classroom Management

Reading/English language arts, 3 hours

- EDCI 4060 - Content Area Reading

Internship (student teaching), 6 hours

See "Field Experience Requirements" in the College of Education general information section of this catalog.

- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School

Electives

See your degree program advisor for an individual degree audit.

Other requirements

a. **Admission to the Teacher Education (TEd) Program:** You must be accepted to the Teacher Education Program prior to enrolling in the first education course. To be eligible for admission, students must have:
   - Completed a minimum of 60 semester hours, including the University Core Curriculum. (See General University requirements in the Academic Policies and Procedures section of this catalog.) Programs in teacher education require specific courses contained in parts of the University Core Curriculum to satisfy particular degree requirements. Students should consult program advisors for best choices in the core;
   - A 2.75 UNT GPA;
   - A 2.75 overall GPA (includes all courses transferred to UNT, plus all courses taken at UNT);
   - Appropriate exam scores on either the ACT, SAT or Praxis Core: Academic Skills for Educators; (contact the Student Advising Office in Matthews Hall, Room 105, for further information on the exam requirement); and
   - Formally applied and been admitted to Teacher Education through the College of Education Student Advising Office in Matthews Hall, Room 105. Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or https://coe.unt.edu/student-advising for details and to apply for admission to the Teacher Education.

b. **Eligibility for Teacher Certification and Recommendation:** Teacher certification is granted by the State Board for Educator Certification. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by the agency. In order to be recommended for teacher certification through the University of North Texas, students must have:
   - Successfully completed an approved teacher education program for the preparation of early childhood, elementary, middle grades, secondary or all-level teachers;
   - Successfully completed student teaching, including attendance at appropriate seminars; and
   - Passed the TExES Pedagogy and Professional Responsibilities (PPR) and all required content tests of the Texas Examinations of Educator Standards (TExES), as applicable.
   - **Eligibility to test:** Access to register for Texas teacher certification exams (TExES) is granted to students who have been formally admitted to the Teacher Education program at UNT. Some content areas require that students take their content practice exam as part of a course requirement, or prerequisite for Early Field Experience. Only students who have been admitted to the Teacher Education program may sit for the practice exam.

The TExES Practice exams are offered four times in each long semester and twice during the summer. Students should visit with the TExES Success Office in Matthews Hall, Room 119, for further information about their required exams (940-369-8601).

College of Engineering

Dean's Office
Discovery Park, Room A140

Mailing address:
1155 Union Circle #310440
Denton, TX 76203-5017
940-565-4300

Undergraduate Academic Advising
Discovery Park, Room A101
940-565-4201
Web site: engineering.unt.edu

Paul Krueger, Dean
Seifollah Nasrazadani, Associate Dean
Stephanie Ludi, Associate Dean
Andrey Voevodin, Associate Dean

Faculty

Engineering is the application of science and mathematics to the solution of relevant societal needs and problems. The current standard of living is due in large part to efforts of engineers and technologists. Technological development has created a demand for qualified engineers and technologists who maintain the momentum of innovation and who extend and direct its course. The expanding population, with its increased demand for goods and services, has imposed challenges to provide a diversity of new and better products with minimized adverse side effects. Engineers and technologists recognize that long-term solutions are found in careful, thorough planning and study.

The University of North Texas College of Engineering strives to educate and train engineers and technologists who have the vision to recognize and solve the problems of society. The College of Engineering comprises five degree-granting departments of instruction and research. The Department of Biomedical Engineering, the Department of Computer Science and Engineering, the Department of Electrical Engineering, the Department of Materials Science and Engineering, and the Department of Mechanical Engineering offer programs of study and research leading to bachelor's, master's and doctoral degrees; some offer programs in one or more majors. Undergraduate programs include biomedical engineering, computer engineering, computer science, construction engineering technology, construction management, cybersecurity, electrical engineering, information technology, materials science and engineering, mechanical and energy engineering, and mechanical engineering technology.

The College of Engineering strives to maximize everyone's potential to transform toward greater excellence. As the university continues to ascend in its Tier One designation and as the College of Engineering excels in impactful research and education, all faculty and staff in the College of Engineering will use their respective strengths to advance this shared mission.

The College of Engineering provides a caring and inclusive environment for students to learn and excel. As the university becomes a preferred destination of first-generation college students, underrepresented minority students and non-traditional students, the College of Engineering provides education through a combination of on-campus and online methods and offers a quality curriculum, accommodation and dedicated mentoring.

Mission

The College of Engineering prepares a diverse pool of students to become future engineers and engineering leaders and conducts basic and applied research of societal impact.

Vision

The College of Engineering will be an impactful institution that excels in knowledge creation, propagation and application.

College of Engineering admissions requirements

Admission to the College of Engineering is contingent on clear admission to the university. The College of Engineering has 5 departments.

Applicants will be admitted to the College of Engineering in an engineering program if they meet the requirements below:

Freshman applicants:

1. They were in the top 25% of their graduating class and have a math SAT score of 590 or better and a total SAT score of 1140 or better; or a math ACT score of 23 or better and a cumulative ACT score of 23 or better.
2. They were in the top 50% of their graduating class or have no graduating class ranking (home schooled, GED, international students, etc.) and have a math SAT score of 620 or better and a total SAT score of 1170 or better; or a math ACT score of 24 or better and a cumulative ACT score of 24 or better.
3. They were below 50% in their graduating class and have a math SAT score of 650 or better and a total SAT score of 1250 or better; or a math ACT score of 26 or better and a cumulative ACT score of 26 or better.
    - Freshman applicants to the construction engineering technology or mechanical engineering technology programs must have a math SAT score of 570 or better, or a math ACT score of 22 or better.
    - Freshman applicants to the construction management program are automatically admitted when their admissions to the university is met.

Transfer, international and post-baccalaureate applicants:

- Transfer, international and post-baccalaureate (second bachelor's degree) applicants must be eligible to enroll in MATH 1710 (Calculus I) or in a higher-level math class and have a grade point average of 2.0 or greater in all prior math, science and engineering coursework.

Enrollment in mathematics classes for entering freshmen will be determined in accordance with criteria established by the Department of Mathematics. The UNT mathematics department web site lists links to preparation tests for the UNT math placement exam (math.unt.edu/undergraduate/placement).

Degree audit

A degree audit is an official document of the university that lists all the courses needed to complete a chosen degree and shows how all of the courses completed are applied toward the degree.

1. The College of Engineering Undergraduate Academic Advising Office prepares degree audits. Transfer credit may require an evaluation per a course syllabus by a departmental faculty advisor for application on the degree audit. Graduation checks should be requested during the term/semester before graduation.

Academic advising

Information about academic matters is available from various sources within the College of Engineering. Undergraduate academic advising is available through the Dean's Office and in the major departments. Advisors assist students in the selection of courses and answer questions about selecting a major, degree audits, application of transfer credit, general academic requirements and policies and procedures.

While college faculty and staff members give students' academic advice and assistance, each student is expected to take responsibility for his or her education and personal development. The student must know and abide by the academic and disciplinary policies given in the undergraduate catalog, including rules governing quantity of work, the standard of work required to continue in the university, academic probation and dismissal and enforced withdrawal. The student must also know and meet the requirements of his or her degree program, including the University Core Curriculum and the College of Engineering foundation requirements; must enroll in

courses appropriate to the program; must meet prerequisites and take courses in the proper sequence to ensure orderly and timely progress; and must seek advice from college advisors or faculty advisors in the major about degree requirements and other college and university policies when necessary. The student must also know and adhere to all college and university deadlines.

All students are expected to be familiar with the following sources of information. Students will not be relieved of their responsibility to know the policies, deadlines and business practices of the university on the grounds that they were not told. If students have questions regarding these materials, it is the university's expectation that the student will consult his/her academic advisor for guidance and resolution.

Policy on academic performance and dismissal in the College of Engineering

1. Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).
2. A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog.
3. Additional requirements for academic performance are found under the program the student is enrolled in.

NOTE: Students placed on academic suspension for a second time are eligible to apply for readmission to the College of Engineering after having not attended UNT for the prescribed period of time as outlined in "Regulations governing students under academic suspension" in the Academics section of this catalog. A student must petition the dean of the College of Engineering for reinstatement. If the petition for reinstatement is disapproved, a student may not file another petition until the following term. The decision of the office of the dean is final. A student who receives a third suspension will be dismissed indefinitely from the university but will be dismissed permanently from the College of Engineering.

Programs of Study

The college offers the following undergraduate degrees:

- Bachelor of Science with majors in biomedical engineering, computer science, computer engineering, construction management, cybersecurity, electrical engineering, information technology, materials science and engineering, and mechanical and energy engineering;
- Bachelor of Science in engineering technology with majors in construction engineering technology, and mechanical engineering technology.

Grad track programs

The College of Engineering offers grad track options to enable eligible undergraduate students to earn graduate credit hours that are applied towards both the undergraduate and graduate degree plans.

To be eligible, students should be eligible to enroll in the capstone design course in the following semester, have a UNT GPA of 3.5 or higher and want to complete a Master's or PhD that is a) housed in the department from which they are completing their bachelor's degree, and b) within the same discipline as their bachelor's degree.

Two options for the program are offered:

- The grad track leading to Master's degree allows you to earn 9 hours of graduate credit while you are enrolled as an undergraduate student. These 9 credits are also applied to your Master's degree plan once you are admitted to the graduate program.
- The grad track Leading to PhD degree allows you to earn 12 hours of graduate credit while you are enrolled as an undergraduate student. These 12 credits are also applied to your PhD degree plan once you are admitted to the graduate program.

Degree requirements and the University Core Curriculum

Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree requirements and core requirements should consult an academic advisor.

Bachelor of Science degree requirements

Candidates for the Bachelor of Science degree must satisfy all general requirements for the bachelor's degree listed in the Academic Policies and Procedures section of this catalog, and all engineering degree requirements as listed below:

1. Hours required for the degree: Completion of a minimum of 120–128 total semester hours; 36-45 must be advanced, depending on the major.
2. General university requirements: See University Core Curriculum in the Academic Policies and Procedures section of this catalog.
3. Major requirements: A major of at least 24 semester hours; 12 hours of advanced work in the major must be completed at UNT. Only grades of A, B and C in major courses are accepted. See specific degree audit for exact requirements.
4. Minor (optional): A minor is at least 18 hours, of which a minimum of 6 hours must be advanced, from a field outside the major. Minors are chosen with faculty advisors for selected majors. For some majors, the minor is specified, but for most majors, a minor field is optional. Consult major requirements.
5. Electives: see specific degree audit for exact requirements.
6. Other course requirements: Only grades of A, B and C in other required courses are accepted. Examples of other required courses include, but are not limited to, supporting area courses, technical elective courses, technical option courses, math and science courses, and specialization courses. See specific degree audit for exact requirements.

Bachelor of Arts degree requirements

Candidates for the Bachelor of Arts degree must satisfy all general requirements for the bachelor's degree listed in the Academic Policies and Procedures section of this catalog, and all engineering degree requirements as listed below:

1. Hours required for the degree: Completion of a minimum of 121 semester hours; 42 must be advanced.
2. General university requirements: See University Core Curriculum in the Academic Policies and Procedures section of this catalog.
3. Major requirements: A major of at least 30 semester hours; 12 hours of advanced work in the major must be completed at UNT. Only grades of A, B and C in major courses are accepted. See specific degree audit for exact requirements.
4. Minor (optional): A minor is at least 18 hours, of which a minimum of 6 hours must be advanced, from a field outside the major. Minors are chosen with faculty advisors for selected majors. For some majors, the minor is specified, but for most majors, a minor field is optional. Consult major requirements.
5. Electives: See specific degree audit for exact requirements.
6. Other course requirements: Only grades of A, B and C in other required courses are accepted. Examples of other required courses include, but are not limited to, supporting area courses, technical elective courses, technical option courses, math and science courses, and specialization courses. See specific degree audit for exact requirements.

Additive and Digital Manufacturing certificate

Additive and digital manufacturing is an area that combines computer aided design, structural analysis, materials selection and performance, manufacturing, lean manufacturing and technical communication. The certificate enables students to complete courses and complete a project report. The certificate will be administered by the College of Engineering and is open to all majors on campus.

Course requirements, 12 hours

Manufacturing, 9 hours

Students complete 3 courses from the following:

- BMEN 3312 - Introduction to Biomechanics
- BMEN 4100 - Biomedical Mechatronics
- BMEN 4312 - FDA Regulations and Quality Control of Biomedical Systems
- DSCI 2710 - Data Analysis with Spreadsheets
- ENGR 1304 - Engineering Graphics
- ENGR 3450 - Engineering Materials
- MEEN 3100 - Manufacturing Processes
- MEEN 4800 - Topics in Mechanical and Energy Engineering (when topic is "CAD/CAE")
- MEET 3550 - Geometrical Dimensioning and Tolerancing
- MEET 3750 - Digital Manufacturing
- MEET 4100 - Fundamentals of Product and Process Design Development
- MTSE 3000 - Fundamentals of Materials Science and Engineering - I
- MTSE 4040 - Computational Materials Science
- MTSE 4060 - Materials Selection and Performance
- MTSE 4900 - Special Topics in Materials Science and Engineering (when topic is "Additive Manufacturing: Processes and Materials")
- OPSM 3830 - Operations Management
- OPSM 4850 - Lean/Six Sigma

Communication, 3 hours

- TECM 2700 - Technical Writing

Report

Students must register for a zero-credit course under their department major and request a faculty mentor. The students will complete a 5,000 character report that addresses a product that can be additively or digitally manufactured. An introductory paragraph will describe the product or part. The report should have headings with:

1. Design of the part or product using computer aided design.
2. Structural analysis of mechanical failure.
3. Material and manufacturing options to be used.
4. Lean manufacturing and supply chain considerations for large scale production of the part addressing planning for material replacement or equipment options to be considered.

Department of Biomedical Engineering

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Vijay Vaidyanathan, Chair

Faculty

Mission and vision

The mission of the Department of Biomedical Engineering is to provide a student-centered environment that facilitates a culture of interdisciplinary learning and innovation, while encouraging active participation in scholarly and professional activities to serve the biomedical engineering profession and society, while advancing regional economic development.

The vision of the Department of Biomedical Engineering is to create an innovative, interdisciplinary academic program that emphasizes the fundamentals of biomedical engineering; state-of-the-art applications pertaining to biomedical instrumentation, biomaterials, biotechnology, biomechanics and bioinformatics, and other health care–related areas in an environment of life-long learning and research.

Program educational objectives for the biomedical engineering program

Graduates of the biomedical engineering program will:

1. Successfully practice biomedical engineering to serve healthcare institutions, academia, and industry at regional, state, national and international levels.
2. Work professionally in one or more of the following areas: biomedical instrumentation, biomechanics, biomaterials, biotechnology, biocomputing, medicine and healthcare, and business or entrepreneurship.
3. Achieve personal and professional success with commitment to ethical and social responsibility, both as individuals and in team environments.
4. Engage in lifelong learning, including entering and succeeding in an advanced degree program in a field such as engineering, science, medicine and business.

Student outcomes

Upon completion of the Bachelor of Science with a major in biomedical engineering, students are enabled to achieve the following outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental and economic factors;
3. an ability to communicate effectively with a range of audiences;
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Constituencies of the biomedical engineering program

Our program constituencies are:

- students: current, as well as alumni
- faculty, and
- industry (particularly in the North Texas region) represented primarily by our departmental Industrial Advisory Board (IAB) and in general by the College of Engineering Advisory Board (CEAB).

Majors

Biomedical Engineering, BS

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced courses, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering.

Major requirements

A minimum of 65 semester hours, including:

Required courses, 38 hours

- BMEN 1300 - Discover Biomedical Engineering
- BMEN 1400 - Software for Biomedical Engineers
- BMEN 2200 - Advanced Software for Biomedical Engineers
- BMEN 2210 - Biomedical Circuits and Data Acquisition Best Practices
- BMEN 2320 - Biomedical Instrumentation I
- BMEN 3310 - Engineering Measurements from Human Systems
- BMEN 3311 - Biomedical Signal Analysis
- BMEN 3312 - Introduction to Biomechanics
- BMEN 3321 - Biomaterials
- BMEN 3350 - Biomedical Transport Phenomena
- BMEN 4007 - Biomedical Experimental Design and Data Analysis
- BMEN 4212 - Senior Design I
- BMEN 4222 - Senior Design II

Biomedical engineering electives, 9 or 15 hours

Three or five advanced, 3000 and/or 4000-level, organized BMEN courses, dependent on track. Students completing option 1 below will take 9 hours of biomedical engineering electives. Students completing option 2 will take 15 hours of biomedical engineering electives.

Additional electives, 12 or 18 hours (minimum)

Choose one from the options below:

Option 1: Additional engineering electives, 18 hours

18 hours to fulfill one of eight tracks:

- Comprehensive Biomedical Engineering: Six courses (18 hours) from BMEN 3600, BMEN 4000, BMEN 4100, BMEN 4200, BMEN 4310, BMEN 4312, BMEN 4313, BMEN 4314, BMEN 4319, BMEN 4320, BMEN 4321, BMEN 4325, BMEN 4326, BMEN 4915, BMEN 4920
- Biomedical instrumentation: EENG 2610, EENG 2611, EENG 2620, EENG 2621, EENG 2710, EENG 2711, EENG 3510, and one 4000-level course
- Biomechanics: ENGR 2301, ENGR 2302, ENGR 2332, MEEN 2210 and two MEEN 3000- and/or 4000-level courses. Students desiring to get a minor in MEEN need to take one more advanced MEEN course.
- Biocomputing: CSCE 1030, CSCE 1040, CSCE 2100, CSCE 2110, and two CSCE 3000- and/or 4000-level courses.
- Biotechnology: BIOL 1710, BIOL 1720, BIOL 1760, CHEM 2370, CHEM 3210, BMEN 4313, BMEN 4326
- Pre-med: BIOL 1710, BIOL 1720, BIOL 1760, CHEM 2370, CHEM 3210, BMEN 4313, BMEN 4326. Additional courses are required for admission into medical schools, as specified by UNT Pre-med program.
- Biomaterials: MTSE 3000, two courses from MTSE 3010, MTSE 3030, MTSE 3050, MTSE 3070, and three MTSE 3000- or 4000-level courses. MTSE 3001 is strongly recommended.
- Computational Epidemiology: CSCE 1035; CSCE 1045; CSCE 2100; CSCE 2110; CSCE 3850; CSCE 4820.

Option 2: Business electives, 12 hours

12 hours to fulfill one of four tracks:

- Business Foundations Track: 12 hours in Business Foundations courses
- Management: 12 hours in Management courses
- Marketing: 12 hours in Marketing courses
- Entrepreneurship: 12 hours in Entrepreneurship courses

Students choosing Business electives will need to complete 15 hours of Biomedical Engineering (BMEN) Electives.

Other required courses, 31 hours

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

  or

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry

- MATH 2730 - Multivariable Calculus

  or
- MATH 3350 - Introduction to Numerical Analysis

- MATH 3410 - Differential Equations I
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- TECM 2700 - Technical Writing

Minor

Through careful selection of engineering, mathematics electives and electives taken toward one of the five optional tracks (see below), it may be possible for a student to fulfill the requirements for a minor in mathematics and a minor in computer science and computer engineering, material science and engineering, electrical engineering, or mechanical and energy engineering.

Other requirements

Foundation courses

BMEN foundation courses include BMEN 1300, BMEN 1400, BMEN 2200, BMEN 2210, BMEN 2320, MATH 1710, MATH 1720, ENGL 1310 or TECM 1700; TECM 2700; PHYS 1710, PHYS 1730; CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435; BIOL 2301/ BIOL 2311 or PHYS 2220/PHYS 2240 or CHEM 1420/CHEM 1440.

Successful completion of foundation courses is based on achieving a C or higher in each course and cumulative GPA of 2.0.

Major transfer policy

Students enrolled at UNT can transfer into Biomedical Engineering if they have completed the following courses with a C or better and with a cumulative GPA of at least 2.5.

- BMEN 1300 - Discover Biomedical Engineering
- BMEN 1400 - Software for Biomedical Engineers
- BMEN 2200 - Advanced Software for Biomedical Engineers or equivalent CAD course
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

- ENGL 1310 - First-Year Writing I

  or
- TECM 1700 - Introduction to Professional, Science, and Technical Writing

- TECM 2700 - Technical Writing

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

Each semester, students are required to take engineering foundation courses and/or prerequisites to the engineering foundation courses until all foundation courses are successfully completed. Successful completion is a 2.5 GPA for all engineering foundation courses with a C or better in each course.

Successful completion of the foundation courses is required for enrollment in all 3000 and 4000 level courses.

A student will graduate with a degree in Biomedical Engineering, provided the following conditions are satisfied:

1. The student has an overall GPA ≥ 2.0
2. The student has a GPA of 2.0 in Biomedical Engineering Foundation courses and all have been passed with a grade of C or better.
3. The student has a GPA ≥ 2.0 in all degree major courses including but not limited to, engineering, math, sciences, laboratory sciences and technical electives.
4. The student has completed all required courses in the student's degree plan.
5. The student has satisfied all College of Engineering and UNT criteria for graduation.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog."

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
BMEN 1300 - Discover Biomedical Engineering	3 hours	BMEN 1400 - Software for Biomedical Engineers	3 hours
MATH 1710 - Calculus I	4 hours	MATH 1720 - Calculus II	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
Creative Arts core	3 hours	Major science selection*	4 hours
CHEM selection*	4 hours		
Total	17 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
BMEN 2210 - Biomedical Circuits and Data Acquisition Best Practices	3 hours	BMEN 2320 - Biomedical Instrumentation I	3 hours
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	MATH 3410 - Differential Equations I	3 hours
PHYS 1710 - Mechanics	3 hours	American History core	3 hours
PHYS 1730 - Laboratory in Mechanics	1 hour	Political Science core	3 hours
American History core	3 hours	Major math selection*	3 hours
Political Science core	3 hours		
Total	16 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
BMEN 3310 - Engineering Measurements from Human Systems	3 hours	BMEN 3312 - Introduction to Biomechanics	3 hours
BMEN 3311 - Biomedical Signal Analysis	3 hours	BMEN 3321 - Biomaterials	3 hours
BMEN 3350 - Biomedical Transport Phenomena	3 hours	Language, Philosophy and Culture core	3 hours
Business track elective**	3 hours	Business track elective**	3 hours
Business track elective**	3 hours	Business track elective**	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BMEN 4007 - Biomedical Experimental Design and Data Analysis	3 hours	BMEN 4222 - Senior Design II	3 hours
BMEN 4212 - Senior Design I	3 hours	Social and Behavioral Sciences core	3 hours
BMEN elective-4000 level	3 hours	BMEN elective-4000 level	3 hours
BMEN elective-4000 level	3 hours	BMEN elective-4000 level	3 hours
BMEN Elective-4000 level	3 hours		
Total	15 hours	Total	12 hours

Notes

*See “Other required courses” section above and consult with an advisor.

**See “Option 2” under “Additional electives” above.

Grad Track Options

Biomedical Engineering, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements and program policies

Admission requirements

1. Student should be a major in the UNT Biomedical Engineering, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for BME Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5 for BME core courses BMEN 1300, BMEN 2210, BMEN 2320, BMEN 3310, BMEN 3311, BMEN 3312 and BMEN 3321.
4. The student should provide two recommendation letters from BME faculty members with his/her application.
5. Application will be reviewed by both the BME undergraduate advisor and graduate advisor.
6. Once approved by the BME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives or biomedical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.

4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (he/she will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, he/she will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

Students are allowed to take up to 9 hours of graduate credit. BMEN courses that apply to the grad track, with corresponding undergraduate courses in parenthesis:

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326)

All remaining courses required for the Biomedical Engineering, BS must also be completed. Other Biomedical Engineering graduate courses, including BMEN 5800, BMEN 5810, may be applied to the grad track program in Biomedical Engineering with consent of the department.

Biomedical Engineering, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Biomedical Engineering, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The student's application will be reviewed by the undergraduate coordinator in Biomedical Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Biomedical Engineering, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Biomedical Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Biomedical Engineering, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Biomedical Engineering, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Biomedical Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate level courses to replace electives in the BS degree with approval of the undergraduate coordinator and advisor in the Department of Biomedical Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineers
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy
- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Biomedical Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Biomedical Engineering, BS must be completed according to the catalog.

Minors

Biomedical Engineering minor

A minor in biomedical engineering requires a total of 19 semester hours of biomedical engineering courses, including 12 hours of advanced courses. Twelve hours of advanced courses must be taken at UNT.

Requirements

- BMEN 2210 - Biomedical Circuits and Data Acquisition Best Practices
- BMEN 2320 - Biomedical Instrumentation I

Any two courses from:

- BMEN 3311 - Biomedical Signal Analysis or
- BMEN 3312 - Introduction to Biomechanics or
- BMEN 3321 - Biomaterials

- BMEN 3350 - Biomedical Transport Phenomena
- One 3 hour 4000-level BMEN course (student may not use BMEN 4900 or BMEN 4910 to meet this requirement)

Department of Computer Science and Engineering

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Gergely Záruba, Chair

Faculty

The Department of Computer Science and Engineering at the University of North Texas provides very high quality educational programs by maintaining a balance between theoretical and experimental aspects of computer science and engineering, as well as a balance between software and hardware issues, and by providing curricula that serve the citizens and industrial organizations of Texas in general, and those in North Texas in particular. The department offers ABET-accredited Bachelor of Science degrees in computer engineering and computer science and an ABET-accredited Bachelor of Arts degree in information technology. The bachelor of science degree in cybersecurity enabled students to gain skills to create and maintain secure computing systems. The department also offers Master of Science degrees in computer engineering and computer science and a doctoral degree in computer science and engineering. Current research interests of the faculty may be grouped broadly into algorithms and computational science, computer security, computer systems and networks, databases and data mining, intelligent systems and software engineering. Details about specific faculty research may be found on the faculty members' web pages. The departmental research is supported by federal and state agencies as well as industrial concerns.

Vision and mission

The vision of the Department of Computer Science and Engineering is to be a leader for quality research and education in selected areas in computer engineering, computer science and information technology. The mission of the Department of Computer Science and Engineering is to provide high-quality education through its undergraduate degree program in information technology, undergraduate and graduate degree programs in computer science and computer engineering, and to conduct internationally recognized research in selected areas of computer science and engineering.

Majors

Artificial Intelligence, BS

A Bachelor of Science with a major in Artificial Intelligence provides you with technology skills while offering more flexibility, to study a supporting area/application domain that can be outside of traditional computer science. Artificial Intelligence is currently one of the most rapidly growing areas with excellent employment prospects.

The Bachelor of Science degree with a major in Artificial Intelligence is designed to provide a broad education so that the student can take advantage of a variety of professional opportunities in a variety of technology and data/information science fields.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the "University Core Curriculum" in the Academics section of this catalog, and college requirements as specified in the College of Engineering section of this catalog.

Required courses

The courses listed below are required; some of these courses may be used to meet University Core Curriculum requirements.

- TECM 2700 - Technical Writing

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I

Pick two (6-8 hours including labs) from the following laboratory science options:

- BIOL 1132 - Environmental Science

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology

Major requirements

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2120 - Foundations of Computing: Vectors and Matrices
- CSCE 2130 - Foundations of Computing: Analysis and Modeling

- CSCE 3201 - Applied Artificial Intelligence
- CSCE 3214 - Software Development for Artificial Intelligence
- CSCE 3444 - Software Engineering
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 4010 - Social Issues in Computing
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4300 - Intro to Big Data and Data Science
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4110 - Algorithms
- CSCE 4912 - Artificial Intelligence Capstone I
- CSCE 4922 - Artificial Intelligence Capstone II

Supporting area (application domain), 18 hours

18 hours are required to support the Artificial Intelligence major and can be chosen from courses in many UNT departments where AI is applied. Check with a CSE faculty advisor concerning eligible courses. The domain is expected to consist of a cohesive set of courses. (Ex. TECM 4010 - AI and Automation in Technical Communication)

Experiential Learning Requirement, 3 hours

Students complete 3 hours from the following list as part of the 18 hour supporting area. The experiential learning component should be approved in advance by the department before the student enrolls.

- CSCE 4890 - Directed Study
- CSCE 4920 - Cooperative Education in Computer Science and Engineering
- CSCE 4930 - Topics in Computer Science and Engineering
- CSCE 4940 - Special Computer Application Problem
- CSCE 4950 - Special Problems in Computer Science and Engineering
- CSCE 4999 - Senior Thesis
- Other approved experiences

Note

A maximum of 6 hours of credit in the following will count toward this degree: CSCE 4890, CSCE 4920, CSCE 4940, and CSCE 4950. The 6 hours may include at most 3 hours in CSCE 4920.

Minor

Optional.

Electives

See your academic advisor to discuss electives needed to reach the required 120 credit hours needed to graduate.

Other requirements

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student getting grades lower than C two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1010 - Discovering Computer Science	3 hours	CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour
ENGL 1310 - First-Year Writing I	3 hours	CSCE 1030 - Computer Science I	3 hours
MATH 1710 - Calculus I	4 hours	TECM 2700 - Technical Writing	3 hours
American History core	3 hours	Language, Philosophy and Culture core	3 hours
Science Elective with Lab	3 hours	Science Elective with Lab	4 hours
Total	16 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
CSCE 1040 - Computer Science II	3 hours	CSCE 2120 - Foundations of Computing: Vectors and Matrices	3 hours
CSCE 2100 - Foundations of Computing	3 hours	CSCE 2130 - Foundations of Computing: Analysis and Modeling	3 hours
CSCE 2110 - Foundations of Data Structures	3 hours	CSCE 3214 - Software Development for Artificial Intelligence	3 hours
CSCE 3201 - Applied Artificial Intelligence	3 hours	Creative Arts Core	3 hours
American History core	3 hour	Govt/Political Science Core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CSCE 3444 - Software Engineering	3 hours	CSCE 4010 - Social Issues in Computing	3 hours
CSCE 3550 - Foundations of Cybersecurity	3 hours	CSCE 4110 - Algorithms	3 hours
CSCE 4201 - Introduction to Artificial Intelligence	3 hours	CSCE 4290 - Introduction to Natural Language Processing	3 hours
CSCE 4350 - Fundamentals of Database Systems	3 hours	CSCE 4300 - Intro to Big Data and Data Science	3 hours
Application Domain Elective	3 hours	Application Domain Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CSCE 4205 - Introduction to Machine Learning	3 hours	CSCE 4922 - Artificial Intelligence Capstone II	3 hours
CSCE 4912 - Artificial Intelligence Capstone I	3 hours	Component Area Option Core	3 hours
Government/Political Science core	3 hours	Application Domain Elective	3 hours
Social and Behavioral Sciences core	3 hours	Application Domain Elective	3 hours
Experiential Learning Requirement	3 hours	Application Domain Elective	3 hours
Total	15 hours	Total	15 hours

Computer Engineering, BS

The Bachelor of Science with a major in computer engineering provides a high-quality education by balancing the theoretical and experimental aspects of hardware and software issues. A BS with a major in computer engineering provides excellent job prospects in the engineering and technology sectors.

The Bachelor of Science degree with a major in computer engineering is designed for students who wish to specialize in computer hardware, communication systems, digital signal processing, micro-controllers, real-time and embedded systems. Computer engineering students are exposed to both theoretical and practical issues of both hardware and software in laboratories with state-of-the art equipment. The program provides a strong engineering background, with an understanding of the principles and techniques of computing. A professional degree, which includes a two-term/semester senior design project sequence, prepares the graduates for a career and graduate studies in computer engineering and related fields.

Degree requirements

Hours required and general/college requirements

A minimum of 121 semester hours, of which 39 must be advanced, and fulfillment of degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering requirements.

Major requirements

A minimum of 52 semester hours, including:

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2120 - Foundations of Computing: Vectors and Matrices
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3010 - Signals and Systems
- CSCE 3020 - Communications Systems
- CSCE 3600 - Principles of Systems Programming
- CSCE 3610 - Introduction to Computer Architecture
- CSCE 3612 - Embedded Systems Design
- CSCE 3730 - Reconfigurable Logic
- CSCE 4010 - Social Issues in Computing

- CSCE 4910 - Computer Engineering Design I
- CSCE 4915 - Computer Engineering Design II

Other required courses

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- EENG 2610 - Circuit Analysis and
- EENG 2611 - Circuit Analysis Lab

- EENG 2710 - Digital Logic Design and
- EENG 2711 - Digital Logic Design Lab

- EENG 3510 - Electronics I (Devices and Materials)

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II

- MATH 1720 - Calculus II

  or

- MATH 1830 - Calculus for Science and Engineering III

- MATH 2730 - Multivariable Calculus

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- TECM 2700 - Technical Writing

Specialization area, 9 hours

Three courses selected from one of the five computer engineering specialization areas listed below.

Real-Time and Embedded Systems

- CSCE 3444 - Software Engineering
- CSCE 4440 - Real-Time Software Development
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4610 - Computer Architecture
- CSCE 4620 - Real-Time Operating Systems
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study

VLSI and Electronics

- CSCE 3610 - Introduction to Computer Architecture
- CSCE 4610 - Computer Architecture
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study
- PHYS 4500 - Introduction to Solid-State Physics

Communication and Networks

- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 4510 - Introduction to Wireless Communications
- CSCE 4520 - Wireless Networks and Protocols
- CSCE 4530 - Computer Network Design
- CSCE 4560 - Secure Electronic Commerce
- CSCE 4890 - Directed Study

Computer Systems

- CSCE 4160 - Parallel Programming
- CSCE 4050 - Applications of Cryptography
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4610 - Computer Architecture
- CSCE 4620 - Real-Time Operating Systems
- CSCE 4650 - Introduction to Compilation Techniques
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study

Artificial intelligence and machine learning

Many embedded systems designers are using Artificial Intelligence (AI) and Machine Learning (ML) techniques to provide smart solutions for their applications. Currently, there is demand for engineers in the job market with some AI and ML expertise.

- CSCE 4200 - Web Search and Information Retrieval
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4380 - Data Mining
- CSCE 4890 - Directed Study

Note

A maximum of 6 hours of credit in CSCE 4890, CSCE 4920, CSCE 4940, or CSCE 4950 will count toward this degree. The 6 hours may include at most 3 hours in CSCE 4920.

Minor

Optional.

Electives

See CSE faculty advisor.

Other requirements

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student making grades lower than C two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1010 - Discovering Computer Science	3 hours	CSCE 1030 - Computer Science I	3 hours
MATH 1710 - Calculus I	4 hours	CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour
American History core	3 hours	MATH 1720 - Calculus II	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
CHEM selection*	4 hours	PHYS 1710 - Mechanics	3 hours
		PHYS 1730 - Laboratory in Mechanics	1 hour
		Language, Philosophy and Culture core	3 hours
Total	17 hours	Total	17 hours

Year 2

Semester 1		Semester 2	
CSCE 1040 - Computer Science II	3 hours	CSCE 2100 - Foundations of Computing	3 hours
EENG 2710 - Digital Logic Design	3 hours	CSCE 2110 - Foundations of Data Structures	3 hours
EENG 2711 - Digital Logic Design Lab	1 hour	EENG 2610 - Circuit Analysis	3 hours
PHYS 2220 - Electricity and Magnetism	3 hours	EENG 2611 - Circuit Analysis Lab	1 hour
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	American History core	3 hours
Political Science core	3 hours		
Total	14 hours	Total	13 hours

Year 3

Semester 1		Semester 2	
CSCE 2610 - Assembly Language and Computer Organization	3 hours	CSCE 3020 - Communications Systems	3 hours
CSCE 3010 - Signals and Systems	3 hours	CSCE 3610 - Introduction to Computer Architecture	3 hours
CSCE 3600 - Principles of Systems Programming	3 hours	CSCE 3612 - Embedded Systems Design	3 hours
CSCE 3730 - Reconfigurable Logic	3 hours	CSCE 2130 - Foundations of Computing: Analysis and Modeling	3 hours
EENG 3510 - Electronics I (Devices and Materials)	3 hours	CSCE 2120 - Foundations of Computing: Vectors and Matrices	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CSCE 4910 - Computer Engineering Design I	3 hours	CSCE 4010 - Social Issues in Computing	3 hours
Creative Arts core	3 hours	CSCE 4915 - Computer Engineering Design II	3 hours
Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
Communication and Networks specialization selection	3 hours	Communication and Networks Specialization	3 hours
Communication and Networks specialization selection	3 hours	Elective	2 hours
Total	15 hours	Total	14 hours

Notes

*See "Other required courses" above.

Computer Science, BS

A Bachelor of Science with a major in computer science provides a high-quality education by balancing the theoretical and experimental aspects of hardware and software issues. Computer science is considered to be at or near the top in terms of BS degrees in demand for job prospects.

The Bachelor of Science degree with a major in computer science is a professional degree designed to prepare the student for a career of further studies in the technology and application of computers.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering requirements.

Major requirements

A minimum of 55 semester hours, including:

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2120 - Foundations of Computing: Vectors and Matrices
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3444 - Software Engineering
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4110 - Algorithms
- CSCE 4350 - Fundamentals of Database Systems

- CSCE 4901 - Software Development Capstone I
- CSCE 4902 - Software Development Capstone II
- plus 6 hours chosen from CSCE Advanced Elective Courses

CSCE core, 6 hours

Students choose 6 hours from the following.

- CSCE 3530 - Introduction to Computer Networks
- CSCE 4115 - Formal Languages, Automata and Computability
- CSCE 4430 - Programming Languages
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4650 - Introduction to Compilation Techniques

CSCE breadth courses, 6 hours

Students choose 6 hours from the following.

- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4210 - Game Programming I
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4460 - Software Testing and Empirical Methodologies

Note

A maximum of 6 hours of credit in CSCE 2900, CSCE 4890, CSCE 4920, CSCE 4940 or CSCE 4950 will count toward this degree. The 6 hours may include at most 3 hours in CSCE 4920.

Other required courses

- EENG 2710 - Digital Logic Design

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I

  and

- MATH 1820 - Calculus for Science and Engineering II

- TECM 2700 - Technical Writing

Laboratory science, 6-8 hours

Choose 2 courses (6-8 hours) from the following courses

Note: some CSCE courses may have specific science prerequisites. Please check with an advisor when selecting your science options.

- BIOL 1112 - Contemporary Biology
- BIOL 1132 - Environmental Science

- BIOL 1710 - Biology for Science Majors I and/or
- BIOL 1720 - Biology for Science Majors II

  and

- BIOL 1760 - Biology for Science Majors Laboratory

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology

- PHYS 1052 - The Solar System
- PHYS 1062 - Stars and the Universe
- PHYS 1270 - Science and Technology of Musical Sound
- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I
- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

3 hours selected from

Any 4000-level TECM course.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Engineering. Currently, there should be approximately 15 hours of CSCE electives available.

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student making grades lower than C two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic Standing (Status)" and "Academic Suspension" in the Academic Policies and Procedures section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1010 - Discovering Computer Science	3 hours	CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour
MATH 1710 - Calculus I	4 hours	CSCE 1030 - Computer Science I	3 hours
American History core	3 hours	TECM 2700 - Technical Writing	3 hours
Communication Core	3 hours	American History core	3 hours
Elective	3 hours	Elective	2 hours
Total	16 hours	Total	12 hours

Year 2

Semester 1		Semester 2	
CSCE 1040 - Computer Science II	3 hours	CSCE 2100 - Foundations of Computing	3 hours
EENG 2710 - Digital Logic Design	3 hours	CSCE 2110 - Foundations of Data Structures	3 hours
TECM 4000 Elective	3 hours	CSCE 2610 - Assembly Language and Computer Organization	3 hours
PHYS 1710 - Mechanics	3 hours	Creative Arts Core	3 hours
PHYS 1730 - Laboratory in Mechanics	1 hour	PHYS 2220 - Electricity and Magnetism	3 hours
CSCE Elective	3 hours	PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour
Total	16 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
CSCE 3550 - Foundations of Cybersecurity	3 hours	CSCE 3444 - Software Engineering	3 hours
CSCE 3600 - Principles of Systems Programming	3 hours	CSCE 4110 - Algorithms	3 hours
CSCE Core Elective	3 hours	CSCE 2130 - Foundations of Computing: Analysis and Modeling	3 hours
CSCE 2120 - Foundations of Computing: Vectors and Matrices	3 hours	CSCE Core Elective	3 hours
Elective	3 hours	CSCE Breadth Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CSCE 4010 - Social Issues in Computing	3 hours	CSCE 4902 - Software Development Capstone II	3 hours
CSCE 4901 - Software Development Capstone I	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Language, Philosophy and Culture core	3 hours
Social and Behavioral Sciences core	3 hours	CSCE Elective-advanced	3 hours
CSCE Breadth Elective	3 hours	CSCE Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Cybersecurity, BS

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering requirements.

Major requirements

Major of 70 hours, including:

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2120 - Foundations of Computing: Vectors and Matrices
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3560 - Cloud Security
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4535 - Introduction to Network Administration
- CSCE 4555 - Computer Forensics
- CSCE 4560 - Secure Electronic Commerce
- CSCE 4565 - Secure Software Development
- CSCE 4575 - Blockchain and Applications
- CSCE 4907 - Cybersecurity Capstone I
- CSCE 4927 - Cybersecurity Capstone II

Electives

Students choose four courses from the following list:

- CSCE 4050 - Applications of Cryptography
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4357 - Database Systems Security
- CSCE 4520 - Wireless Networks and Protocols
- CSCE 4570 - Information Privacy
- CSCE 4600 - Introduction to Operating Systems
- CJUS 3340 - Computer Crime
- CJUS 4330 - Domestic and International Terrorism
- INFO 4670 - Data Analysis and Knowledge Discovery
- INFO 4710 - Information Technology Management
- INFO 4745 - Information Architecture

Other course requirements

- MATH 1710 - Calculus I

  or
- MATH 1810-Calculus I for Engineers

- TECM 2700 - Technical Writing

Choose 2 courses (6-8 hours including labs) from the following:

Note: courses that have a separate lab must include both the lecture and lab components (e.g., PHYS 1710 AND PHYS 1730).

- BIOL 1112 - Contemporary Biology
- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I
- BIOL 1720 - Biology for Science Majors II
- BIOL 1760 - Biology for Science Majors Laboratory
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

- CHEM 1410 - General Chemistry I for Science Majors
and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors
and
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology
- PHYS 1052 - The Solar System
- PHYS 1062 - Stars and the Universe
- PHYS 1270 - Science and Technology of Musical Sound
- PHYS 1410 - General Physics I
- PHYS 1420 - General Physics II
- PHYS 1430 - General Physics Laboratory I
- PHYS 1440 - General Physics Laboratory II
- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Engineering. Typically, 3 courses or 9 credit hours is needed to reach the required 120 credit hours.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1010 - Discovering Computer Science	3 hours	CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour
MATH 1710 - Calculus I	4 hours	CSCE 1030 - Computer Science I	3 hours
American History core	3 hours	TECM 2700 - Technical Writing	3 hours
Communication core	3 hours	Component Area Option	3 hours
Elective	3 hours	Elective	2 hours
Total	16 hours	Total	12 hours

Year 2

Semester 1		Semester 2	
CSCE 1040 - Computer Science II	3 hours	CSCE 2100 - Foundations of Computing	3 hours
PHYS 1710 - Mechanics	3 hours	CSCE 2110 - Foundations of Data Structures	3 hours
PHYS 1730 - Laboratory in Mechanics	1 hour	PHYS 2220 - Electricity and Magnetism	3 hours
Political Science core	3 hours	PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour
American History core	3 hours	Creative Arts core	3 hours
Language, Philosophy and Culture core	3 hours	Major Elective selection*	3 hours
Total	16 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
CSCE 3550 - Foundations of Cybersecurity	3 hours	CSCE 3530 - Introduction to Computer Networks	3 hours
CSCE 3600 - Principles of Systems Programming	3 hours	CSCE 3560 - Cloud Security	3 hours
CSCE 2130 - Foundations of Computing: Analysis and Modeling	3 hours	CSCE 4555 - Computer Forensics	3 hours
CSCE 2120 - Foundations of Computing: Vectors and Matrices	3 hours	CSCE 4560 - Secure Electronic Commerce	3 hours
Major Elective selection*	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CSCE 4535 - Introduction to Network Administration	3 hours	CSCE 4927 - Cybersecurity Capstone II	3 hours
CSCE 4565 - Secure Software Development	3 hours	Political Science core	3 hours
CSCE 4575 - Blockchain and Applications	3 hours	Major Elective selection*	3 hours
CSCE 4907 - Cybersecurity Capstone I	3 hours	Major Elective selection*	3 hours
CSCE 4010 - Social Issues in Computing	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Notes

*See "Electives" section under "Major Requirements" above.

Information Technology, BS

A Bachelor of Science with a major in information technology provides you with computer science skills while offering more flexibility, fewer math and science requirements, and the opportunity to study a supporting area that can be outside of computer science. Information technology is currently one of the most rapidly growing areas with excellent employment prospects.

The Bachelor of Science degree with a major in information technology is designed to provide a broad education so that the student can take advantage of a variety of professional opportunities in the information technology field.

Degree requirements

Hours required and general/college requirements

A minimum of 121 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog, and college requirements as specified in the College of Engineering section of this catalog. A minimum of 31 semester hours must be completed at UNT.

Required courses

The courses listed below are required; some of these courses may be used to meet University Core Curriculum requirements.

- TECM 2700 - Technical Writing

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I

Pick two (6-8 hours including labs) from the following laboratory science options:

- BIOL 1112 - Contemporary Biology
- BIOL 1132 - Environmental Science

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology
- PHYS 1052 - The Solar System
- PHYS 1062 - Stars and the Universe

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 1270 - Science and Technology of Musical Sound

Note: Some supporting area selections may require specific choices in the sciences as prerequisites. Please check with your advisor to help you make the correct selections.

Major requirements

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 3055 - IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3444 - Software Engineering
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming

- CSCE 3605 - Systems Administration
- CSCE 4010 - Social Issues in Computing
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4355 - Database Administration
- CSCE 4535 - Introduction to Network Administration
- CSCE 4905 - Information Technology Capstone I
- CSCE 4925 - Information Technology Capstone II

Supporting area, 18-20 hours

18-20 hours are required to support the information technology major and can be chosen from courses in many UNT departments. Check with a CSE faculty advisor concerning eligible courses.

Note

A maximum of 6 hours of credit in the following will count toward this degree: CSCE 4890, CSCE 4920, CSCE 4940, or CSCE 4950. The 6 hours may include at most 3 hours in CSCE 4920.

Minor

Optional.

Electives

See your academic advisor to discuss electives needed to reach the required 121 credit hours needed to graduate.

Other requirements

A maximum of 24 hours of technical credit from an accredited college may be applied to the supporting area.

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student getting grades lower than C two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic Standing (Status)" and "Academic Suspension" in the Academic Policies and Procedures section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1010 - Discovering Computer Science	3 hours	CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour
MATH 1710 - Calculus I	4 hours	CSCE 1030 - Computer Science I	3 hours
American History Core	3 hours	American History Core	3 hours
Communication Core	3 hours	TECM 2700 - Technical Writing	3 hours
CSIT Major Science	4 hours	Government/Political Science Core	3 hours
Total	17 hours	Total	13 hours

Year 2

Semester 1		Semester 2	
CSCE 1040 - Computer Science II	3 hours	CSCE 2100 - Foundations of Computing	3 hours
PHYS 1710 - Mechanics	3 hours	CSCE 2110 - Foundations of Data Structures	3 hours
PHYS 1730 - Laboratory in Mechanics	1 hour	BSIT Supporting Area	3 hours
BSIT Supporting Area	3 hours	Language, Philosophy and Culture Core	3 hours
Creative Arts Core	3 hours	Social and Behavioral Sciences Core	3 hours
Government/Political Science Core	3 hours		
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CSCE 3055 - IT Project Management	3 hours	CSCE 3530 - Introduction to Computer Networks	3 hours
CSCE 3220 - Human Computer Interfaces	3 hours	CSCE 3605 - Systems Administration	3 hours
CSCE 3420 - Internet Programming	3 hours	CSCE 3444 - Software Engineering	3 hours
CSCE 3600 - Principles of Systems Programming	3 hours	CSCE 4010 - Social Issues in Computing	3 hours
CSCE 2130 - Foundations of Computing: Analysis and Modeling	3 hours	CSCE 4350 - Fundamentals of Database Systems	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CSCE 3550 - Foundations of Cybersecurity	3 hours	CSCE 4925 - Information Technology Capstone II	3 hours
CSCE 4355 - Database Administration	3 hours	BSIT Supporting Area	3 hours
CSCE 4535 - Introduction to Network Administration	3 hours	BSIT Supporting Area	3 hours
CSCE 4905 - Information Technology Capstone I	3 hours	BSIT Supporting Area	3 hours
BSIT Supporting Area	3 hours	BSIT Supporting Area	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Computer Engineering, BS with grad track option leading to Artificial Intelligence, MS

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Engineering, BS program. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5200 - Information Retrieval and Web Search
- CSCE 5210 - Fundamentals of Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5290 - Natural Language Processing
- CSCE 5380 - Data Mining

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements and program policies

Admission requirements

1. Student should be a major in the UNT Computer Engineering, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).

3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. Application will be reviewed by both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Biomedical Engineering.
5. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. BMEN courses that apply to the grad track, with corresponding undergraduate courses in parenthesis:

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5220 - Building Information Modeling
- EMGT 5230 - Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 - Design of Experiments
- MEEN 5030 - Product Design and Development
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites And Foams For Lightweight Energy Efficient Structures
- MEEN 5180 - Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer

- MEEN 5311 – Convection Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineers
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Computer Engineering, BS must also be completed. Other graduate courses, including BMEN 5800, BMEN 5810, may be applied to the Computer Engineering, BS and Biomedical Engineering, MS with consent of the departments.

Computer Engineering, BS with grad track option leading to Computer Engineering, MS

The Department of Computer Science and Engineering offers a grad track option for existing UNT undergraduate students majoring in computer engineering.

In this grad track option, the student can take a maximum of nine (9) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Engineering, BS program. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours (one benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester). Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- Average minimum GPA of 3.5 for all computer engineering core courses (CSCE 2610, CSCE 3600, and either CSCE 3612 or CSCE 3730); and
- A statement of purpose is required.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, he or she will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 GPA or higher, he or she will be fully admitted. Undergraduate students who have been accepted to a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate level course work will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of the program.

- CSCE 5050 - Applications of Cryptography
- CSCE 5200 - Information Retrieval and Web Search
- CSCE 5210 - Fundamentals of Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5220 - Computer Graphics
- CSCE 5250 - Introduction to Game Programming
- CSCE 5255 - Programming Math and Physics for Games
- CSCE 5260 - 3D Game Programming
- CSCE 5265 - Advanced Topics in Game Development
- CSCE 5290 - Natural Language Processing
- CSCE 5350 - Fundamentals of Database Systems
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability
- CSCE 5430 - Software Engineering
- CSCE 5450 - Programming Languages
- CSCE 5510 - Wireless Communications
- CSCE 5520 - Wireless Networks and Protocols
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce

- CSCE 5585 - Network Security
- CSCE 5610 - Computer System Architecture
- CSCE 5620 - Real-Time Operating Systems
- CSCE 5640 - Operating System Design
- CSCE 5650 - Compiler Design
- CSCE 5655 - Principles of Compiler Optimization
- CSCE 5730 - Digital CMOS VLSI Design
- CSCE 5810 - Bioinformatics Algorithms
- CSCE 5820 - Advances in Bioinformatics

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Computer Science and Engineering, PhD

This grad track option is a BS to PhD accelerated program for computer science and computer engineering undergraduate students. The student can take a maximum of 12 credit hours of graduate courses while completing the BS degree. These credits will be counted first toward the BS degree and then, upon graduation, be transferred to the PhD degree.

The following is the step-by-step process:

1. A student applies for the grad track option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and the student has completed at least 90 credit hours, the student can start taking graduate courses that are approved for the grad track option as CSE electives for the BS degree requirements. For the graduate courses to be counted toward the PhD degree later, the student should earn a grade of B or higher for the courses.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. Once the student satisfies all course work for the BS degree and having maintained a 3.5 or higher GPA, the student will submit three recommendation letters from faculty members and a statement of purpose to be considered for entry into the PhD program.
4. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student does not enroll in graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will no longer be counted for the PhD degree, even if the student comes back for graduate school in the future.
5. Once admitted to the PhD program, the students will have higher priority for funding (research and teaching assistantship) to support PhD study.
6. TGS will be consulted for cases when students enrolled in the BS program with the BS-to-MS grad track option are transferred to the program with the BS-to-PhD grad track option.

Program requirements

Students may choose up to 12 hours from the following list of courses:

- CSCE 5050 - Applications of Cryptography (for CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (for CSCE 4200)
- CSCE 5210 - Fundamentals of Artificial Intelligence (for CSCE 4201)
- CSCE 5215 - Machine Learning (for CSCE 4930 when topic is “Machine Learning”)
- CSCE 5220 - Computer Graphics (for CSCE 4230)
- CSCE 5225 - Digital Image Processing (for CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (for CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (for CSCE 4255)
- CSCE 5260 - 3D Game Programming (for CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (for CSCE 4250)
- CSCE 5290 - Natural Language Processing (for CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (for CSCE 4350)
- CSCE 5400 - Formal Languages, Automata and Computability (for CSCE 4115)
- CSCE 5430 - Software Engineering (for CSCE 3444)
- CSCE 5450 - Programming Languages (for CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (for CSCE 4460)
- CSCE 5510 - Wireless Communications (for CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (for CSCE 4520)
- CSCE 5560 - Secure Electronic Commerce (for CSCE 4560)
- CSCE 5585 - Network Security (for CSCE 4930 when topic is “Block Chain”)
- CSCE 5610 - Computer System Architecture (for CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (for CSCE 4620)
- CSCE 5640 - Operating Systems Design (for CSCE 4600)
- CSCE 5650 - Compiler Design (for CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (for CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (for CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (for CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (for CSCE 4820)

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Computer Science, MS

Admission requirements

Students applying to the grad track option should be majors in the department’s Computer Engineering, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students’ application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for

grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Cybersecurity, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Engineering, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)

- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Data Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Engineering, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)

- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Engineering, BS must be completed.

Computer Engineering, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Computer Engineering, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate coordinator in Computer Science and Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Computer Engineering, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Computer Science and Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Computer Engineering, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Computer Engineering, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Computer Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the

student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate-level courses to replace electives in the BS degree with the approval of the undergraduate coordinator and advisor in the Department of Computer Science and Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy
- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Computer Engineering, BS must be completed according to the catalog.

Computer Engineering, BS with grad track option leading to Semiconductor Manufacturing Engineering, MS

The Semiconductor Manufacturing Engineering, MS program is an interdisciplinary program that prepares students for the vital and growing semiconductor industry. This cross-departmental grad track pathway will allow students in the Computer Engineering, BS program to combine the knowledge they gained through their BS degree with advanced education in semiconductor manufacturing.

This grad track pathway provides the opportunity for any qualified Computer Engineering, BS (CMPE-BS) student to complete a Master's in Semiconductor Manufacturing Engineering (SCME-MS). Students can transfer up to 9 approved credits from their CMPE-BS degree to the SCME-MS program.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, student should submit the following to the grad track coordinator of the Computer Engineering, BS and Semiconductor Manufacturing Engineering, MS programs before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The student's application will be reviewed by the undergraduate coordinator in Computer Engineering and the graduate coordinator in Semiconductor Manufacturing Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Semiconductor Manufacturing Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Semiconductor Manufacturing Engineering, MS.

Program Requirements

The student is allowed to take three of the graduate courses listed below in the senior year of the program for a total of 9 hours. These courses may be changed only if approved by both the Computer Engineering undergraduate and Semiconductor Manufacturing Engineering graduate coordinators.

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Computer Engineering, BS.

After receiving their bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in semiconductor manufacturing engineering *(see Graduate Catalog)*.

- CSCE 5210 Fundamentals of Artificial Intelligence
- CSCE 5215 Machine Learning
- CSCE 5520 Wireless Networks and Protocols
- CSCE 5730 Digital CMOS VLSI Design

Program Policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Computer Engineering, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Computer Science, BS with grad track option leading to Artificial Intelligence, MS

Admission requirements and program policies

Admission Requirements

Students applying to the grad track option should be majors in the department's Computer Science, BS program. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program Requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5200 - Information Retrieval and Web Search
- CSCE 5210 - Fundamentals of Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5290 - Natural Language Processing
- CSCE 5380 - Data Mining

All remaining courses for Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Computer Science, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. BMEN courses that apply to the grad track, with corresponding undergraduate courses in parenthesis:

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 – Advanced Construction Scheduling
- EMGT 5220 – Building Information Modeling
- EMGT 5230 – Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 - Design of Experiments
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5180 – Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5152 – Mechanics of Composites And Foams For Lightweight Energy Efficient Structures
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 – Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineers
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Computer Science, BS must also be completed. Other graduate courses, including BMEN 5800, BMEN 5810, may be applied to the Computer Science, BS and Biomedical Engineering, MS with consent of the departments.

Computer Science, BS with grad track option leading to Computer Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Science, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Computer Science and Engineering, PhD

This grad track option is a BS to PhD accelerated program for computer science and computer engineering undergraduate students. The student can take a maximum of 12 credit hours of graduate courses while completing the BS degree. These credits will be counted first toward the BS degree and then, upon graduation, be transferred to the PhD degree.

The following is the step-by-step process:

1. A student applies for the grad track option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and the student has completed at least 90 credit hours, the student can start taking graduate courses that are approved for the grad track option as CSE electives for the BS degree requirements. For the graduate courses to be counted toward the PhD degree later, the student should earn a grade of B or higher for the courses.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. Once the student satisfies all course work for the BS degree and having maintained a 3.5 or higher GPA, the student will submit three recommendation letters from faculty members and a statement of purpose to be considered for entry into the PhD program.
4. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student does not enroll in graduate school in the long semester after finishing his/

her BS degree, those graduate course credit hours will no longer be counted for the PhD degree, even if the student comes back for graduate school in the future.

5. Once admitted to the PhD program, the students will have higher priority for funding (research and teaching assistantship) to support PhD study.
6. TGS will be consulted for cases when students enrolled in the BS program with the BS-to-MS grad track option are transferred to the program with the BS-to-PhD grad track option.

Program requirements

Students may choose up to 12 hours from the following list of courses.

- CSCE 5050 - Applications of Cryptography (for CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (for CSCE 4200)
- CSCE 5210 - Fundamentals of Artificial Intelligence (for CSCE 4201)
- CSCE 5215 - Machine Learning (for CSCE 4930 when topic is “Machine Learning”)
- CSCE 5220 - Computer Graphics (for CSCE 4230)
- CSCE 5225 - Digital Image Processing (for CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (for CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (for CSCE 4255)
- CSCE 5260 - 3D Game Programming (for CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (for CSCE 4250)
- CSCE 5290 - Natural Language Processing (for CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (for CSCE 4350)
- CSCE 5400 - Formal Languages, Automata and Computability (for CSCE 4115)
- CSCE 5430 - Software Engineering (for CSCE 3444)
- CSCE 5450 - Programming Languages (for CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (for CSCE 4460)
- CSCE 5510 - Wireless Communications (for CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (for CSCE 4520)
- CSCE 5560 - Secure Electronic Commerce (for CSCE 4560)
- CSCE 5585 - Network Security (for CSCE 4930 when topic is “Block Chain”)
- CSCE 5610 - Computer System Architecture (for CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (for CSCE 4620)
- CSCE 5640 - Operating Systems Design (for CSCE 4600)
- CSCE 5650 - Compiler Design (for CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (for CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (for CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (for CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (for CSCE 4820)

All remaining courses for Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Computer Science, MS

The Department of Computer Science and Engineering offers a grad track option for existing UNT undergraduate students majoring in computer science.

In this grad track option, the student can take a maximum of nine (9) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the department’s Computer Science, BS program. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours (one benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester). Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- An average minimum GPA of 3.5 for all computer science core courses (CSCE 2610, CSCE 3110X , CSCE 3600); and
- A statement of purpose is required.

The students’ application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, he or she will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 GPA or higher, he or she will be fully admitted. Undergraduate students who have been accepted to a grad track program should complete all of the bachelor’s degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate level course work will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take 3 of the courses listed below in the fourth year of the program:

- CSCE 5050 - Applications of Cryptography
- CSCE 5200 - Information Retrieval and Web Search

- CSCE 5210 - Fundamentals of Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5220 - Computer Graphics
- CSCE 5250 - Introduction to Game Programming
- CSCE 5255 - Programming Math and Physics for Games
- CSCE 5260 - 3D Game Programming
- CSCE 5265 - Advanced Topics in Game Development
- CSCE 5290 - Natural Language Processing
- CSCE 5350 - Fundamentals of Database Systems
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability
- CSCE 5430 - Software Engineering
- CSCE 5450 - Programming Languages
- CSCE 5510 - Wireless Communications
- CSCE 5520 - Wireless Networks and Protocols
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce
- CSCE 5610 - Computer System Architecture
- CSCE 5620 - Real-Time Operating Systems
- CSCE 5640 - Operating System Design
- CSCE 5650 - Compiler Design
- CSCE 5655 - Principles of Compiler Optimization
- CSCE 5730 - Digital CMOS VLSI Design
- CSCE 5810 - Bioinformatics Algorithms
- CSCE 5820 - Advances in Bioinformatics

All remaining courses for the Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Cybersecurity, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Science, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Data Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Computer Science, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Computer Science, BS must be completed.

Computer Science, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Computer Science, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate coordinator in Computer Science and Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Computer Science, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Computer Science and Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Computer Science, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Computer Science, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Computer Science, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate-level courses to replace electives in the BS degree with the approval of the undergraduate coordinator and advisor in the Department of Computer Science and Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 – Advanced Manufacturing
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy

- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Computer Science, BS must be completed according to the catalog.

Computer Science, BS with grad track option leading to Semiconductor Manufacturing Engineering, MS

The Semiconductor Manufacturing Engineering, MS program is an interdisciplinary program that prepares students for the vital and growing semiconductor industry. This cross-departmental grad track pathway will allow students in the Computer Science, BS program to combine the knowledge they gained through their BS degree with advanced education in semiconductor manufacturing.

This grad track pathway provides the opportunity for any qualified Computer Science, BS (CSCI-BS) student to complete a Master's in Semiconductor Manufacturing Engineering (SCME-MS). Students can transfer up to 9 approved credits from their CSCI-BS degree to the SCME-MS program.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, student should submit the following to the grad track coordinators of the Computer Science, BS and Semiconductor Manufacturing Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The student's application will be reviewed by the undergraduate coordinator in Computer Science and the graduate coordinator in Semiconductor Manufacturing Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Semiconductor Manufacturing Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Semiconductor Manufacturing Engineering, MS.

Program Requirements

The student is allowed to take three of the graduate courses listed below in the senior year of the program for a total of 9 hours. These courses may be changed only if approved by both the Computer Science & Engineering undergraduate and Semiconductor Manufacturing Engineering graduate coordinators.

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Computer Science, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in semiconductor manufacturing engineering *(see Graduate Catalog)*.

- CSCE 5210 Fundamentals of Artificial Intelligence
- CSCE 5215 Machine Learning
- CSCE 5520 Wireless Networks and Protocols
- CSCE 5730 Digital CMOS VLSI Design

Program Policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Computer Science, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving their bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Cybersecurity, BS with grad track option leading to Artificial Intelligence, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Cybersecurity, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Cybersecurity, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. The following courses may apply to the grad track with approval of the undergraduate and graduate coordinators of the respective programs.

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4313 - Cellular Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)

- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5230 - Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5180 - Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection of Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Manufacturing Concepts for Mechanical Engineering
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Cybersecurity, BS must also be completed. Other graduate courses may be applied to the Cybersecurity, BS and Biomedical Engineering, MS with consent of the departments.

Cybersecurity, BS with grad track option leading to Computer Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Cybersecurity, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for

grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Computer Science and Engineering, PhD

Admission requirements and program policies

This grad track option is a BS to PhD accelerated program for computer science and computer engineering undergraduate students. The student can take a maximum of 12 credit hours of graduate courses while completing the BS degree. These credits will be counted first toward the BS degree and then, upon graduation, be transferred to the PhD degree.

The following is the step-by-step process:

1. A student applies for the grad track option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and the student has completed at least 90 credit hours, the student can start taking graduate courses that are approved for the grad track option as CSE electives for the BS degree requirements. For the graduate courses to be counted toward the PhD degree later, the student should earn a grade of B or higher for the courses.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. Once the student satisfies all course work for the BS degree and having maintained a 3.5 or higher GPA, the student will submit three recommendation letters from faculty members and a statement of purpose to be considered for entry into the PhD program.
4. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student does not enroll in graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will no longer be counted for the PhD degree, even if the student comes back for graduate school in the future.
5. Once admitted to the PhD program, the students will have higher priority for funding (research and teaching assistantship) to support PhD study.
6. TGS will be consulted for cases when students enrolled in the BS program with the BS-to-MS grad track option are transferred to the program with the BS-to-PhD grad track option.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)

- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Computer Science, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Cybersecurity, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Cybersecurity, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Cybersecurity, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Data Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Cybersecurity, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application;
- A minimum cumulative GPA of 3.5 for all computer science core courses; and
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate

students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Cybersecurity, BS must be completed.

Cybersecurity, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Cybersecurity, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate coordinator in Computer Science and Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Cybersecurity, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Computer Science and Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation

- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Cybersecurity, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Cybersecurity, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Cybersecurity, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate level courses to replace electives in the BS degree with approval of the undergraduate coordinator and advisor in the Department of Computer Science and Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineers
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy
- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Cybersecurity, BS must be completed according to the catalog.

Information Technology, BS with grad track option leading to Artificial Intelligence, MS

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the department's Information Technology, BS program. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application.
- A minimum cumulative GPA of 3.5 for all information technology core courses.
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program.

- CSCE 5200 - Information Retrieval and Web Search
- CSCE 5210 - Fundamentals of Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5290 - Natural Language Processing
- CSCE 5380 - Data Mining

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Information Technology, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. BMEN courses that apply to the grad track, with corresponding undergraduate courses in parenthesis:

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing

- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5220 - Building Information Modeling
- EMGT 5230 - Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 – Design of Experiments
- MEEN 5030 - Product Design and Development
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5180 – Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection of Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineering
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Information Technology, BS must also be completed. Other graduate courses may be applied to the Information Technology, BS and Biomedical Engineering, MS with consent of the departments.

Information Technology, BS with grad track option leading to Computer Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Information Technology, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application.
- A minimum cumulative GPA of 3.5 for all computer science core courses.
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher,

they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Computer Science and Engineering, PhD

Admission requirements and program policies

This grad track option is a BS to PhD accelerated program for computer science and computer engineering undergraduate students. The student can take a maximum of 12 credit hours of graduate courses while completing the BS degree. These credits will be counted first toward the BS degree and then, upon graduation, be transferred to the PhD degree.

The following is the step-by-step process:

1. A student applies for the grad track option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and the student has completed at least 90 credit hours, the student can start taking graduate courses that are approved for the grad track option as CSE electives for the BS degree requirements. For the graduate courses to be counted toward the PhD degree later, the student should earn a grade of B or higher for the courses.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. Once the student satisfies all course work for the BS degree and having maintained a 3.5 or higher GPA, the student will submit three recommendation letters from faculty members and a statement of purpose to be considered for entry into the PhD program.
4. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student does not enroll in graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will no longer be counted for the PhD degree, even if the student comes back for graduate school in the future.
5. Once admitted to the PhD program, the students will have higher priority for funding (research and teaching assistantship) to support PhD study.
6. TGS will be consulted for cases when students enrolled in the BS program with the BS-to-MS grad track option are transferred to the program with the BS-to-PhD grad track option.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)

- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Computer Science, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Information Technology, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application.
- A minimum cumulative GPA of 3.5 for all computer science core courses.
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Cybersecurity, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Information Technology, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application.
- A minimum cumulative GPA of 3.5 for all computer science core courses.
- A statement of purpose.

The student's application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program Policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating Systems Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Data Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the department's Information Technology, BS. Students are eligible for acceptance at the end of their junior year. Approval will be considered once a student has completed at least 75 credit hours. One benchmark is whether or not the student is ready for CSE Senior Design in the following fall semester. Other requirements include:

- A minimum cumulative GPA of 3.5 or higher is required at the time of application.
- A minimum cumulative GPA of 3.5 for all computer science core courses.
- A statement of purpose.

The students' application will be reviewed by an undergraduate and a graduate coordinator in computer science and engineering. Once approved by the CSE coordinators, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

After completing at least 90 credit hours, the student can start taking the accepted graduate courses as technical electives for the BS degree. If the student wants to take other graduate courses for grad track credits, they will need to obtain approvals from both the undergraduate and graduate CSE coordinators. For these graduate courses to be counted for the MS degree, the student must earn a grade of B or higher for each course. Courses cross-listed as graduate/undergraduate must be taken at the graduate level to be counted for graduate credit.

Students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all coursework for the BS degree and maintained a 3.0 GPA or higher, they will be fully admitted to the graduate program. Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses, or enrollment in graduate-level coursework will be suspended.

Students must enroll in graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program:

- CSCE 5050 - Applications of Cryptography (CSCE 4050)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4200)
- CSCE 5200 - Information Retrieval and Web Search (CSCE 4930)
- CSCE 5210 - Fundamentals of Artificial Intelligence (CSCE 4201)
- CSCE 5215 - Machine Learning (CSCE 4930)
- CSCE 5220 - Computer Graphics (CSCE 4230)
- CSCE 5225 - Digital Image Processing (CSCE 4240)
- CSCE 5250 - Introduction to Game Programming (CSCE 4210)
- CSCE 5255 - Programming Math and Physics for Games (CSCE 4255)
- CSCE 5260 - 3D Game Programming (CSCE 4220)
- CSCE 5265 - Advanced Topics in Game Development (CSCE 4250)
- CSCE 5290 - Natural Language Processing (CSCE 4290)
- CSCE 5350 - Fundamentals of Database Systems (CSCE 4350)
- CSCE 5380 - Data Mining
- CSCE 5400 - Formal Languages, Automata and Computability (CSCE 4115)
- CSCE 5430 - Software Engineering (CSCE 3444)
- CSCE 5450 - Programming Languages (CSCE 4430)
- CSCE 5460 - Software Testing and Empirical Methodologies (CSCE 4460)
- CSCE 5510 - Wireless Communications (CSCE 4510)
- CSCE 5520 - Wireless Networks and Protocols (CSCE 4520)
- CSCE 5550 - Introduction to Computer Security
- CSCE 5555 - Computer Forensics
- CSCE 5560 - Secure Electronic Commerce (CSCE 4560)
- CSCE 5585 - Network Security (CSCE 4930)
- CSCE 5610 - Computer System Architecture (CSCE 4610)
- CSCE 5620 - Real-Time Operating Systems (CSCE 4620)
- CSCE 5640 - Operating System Design (CSCE 4600)
- CSCE 5650 - Compiler Design (CSCE 4650)
- CSCE 5655 - Principles of Compiler Optimization (CSCE 4655)
- CSCE 5730 - Digital CMOS VLSI Design (CSCE 4730)
- CSCE 5810 - Bioinformatics Algorithms (CSCE 4810)
- CSCE 5820 - Advances in Bioinformatics (CSCE 4820)

All remaining courses for Information Technology, BS must be completed.

Information Technology, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Information Technology, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate coordinator in Computer Science and Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Information Technology, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Computer Science and Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation

- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Information Technology, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Information Technology, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Information Technology, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate-level courses to replace electives in the BS degree with the approval of the undergraduate coordinator and advisor in the Department of Computer Science and Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineers
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy
- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Computer Science and Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Information Technology, BS must be completed according to the catalog.

Minors

Computer Science and Engineering minor

A minor in computer science and engineering consists of a minimum of 19 semester hours of computer science and engineering courses, including 6 advanced hours. The student is responsible to maintain a C or better in each required course.

Six hours of advanced courses must be taken at UNT.

Required courses

- CSCE 1030 - Computer Science I and
- CSCE 1040 - Computer Science II

  or
- CSCE 1035 - Computer Programming I and
- CSCE 1045 - Computer Programming II

- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures

Cybersecurity minor

The minor in cybersecurity requires 19 hours of course work.

Required courses, 19 hours

- CSCE 1035 - Computer Programming I
- CSCE 1045 - Computer Programming II
- CSCE 2110 - Foundations of Data Structures
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3560 - Cloud Security
- CSCE 3600 - Principles of Systems Programming

Secondary Teacher Certification

Computer Science teacher certification

Requirements utilizing the BS with a major in information technology

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 3055 - IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3444 - Software Engineering
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 3605 - Systems Administration
- CSCE 4355 - Database Administration
- CSCE 4535 - Introduction to Network Administration
- CSCE 4905 - Information Technology Capstone I
- CSCE 4925 - Information Technology Capstone II

Additional requirements

See Information Technology, BS for additional course work and GPA requirements.

Upon completing the BS with a major in information technology program that includes a supporting area of 22 hours of TNT courses, the student will be eligible to take the state computer science teacher certification exam. Computer science option students can also become eligible for this exam by completing the same CSE courses and completing a Mathematics and Science Secondary Teaching minor and meeting all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

Requirements utilizing the BS with a major in computer science

- CSCE 1010 - Discovering Computer Science
- CSCE 1015 - Computing Tools and Techniques Laboratory
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2120 - Foundations of Computing: Vectors and Matrices
- CSCE 2130 - Foundations of Computing: Analysis and Modeling
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3444 - Software Engineering
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4110 - Algorithms
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4901 - Software Development Capstone I
- CSCE 4902 - Software Development Capstone II
- Plus 6 hours chosen from CSCE Advanced Elective Courses

CSCE core, 6 hours

- CSCE 3530 - Introduction to Computer Networks
- CSCE 4115 - Formal Languages, Automata and Computability
- CSCE 4430 - Programming Languages
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4650 - Introduction to Compilation Techniques

CSCE breadth courses, 6 hours

- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4210 - Game Programming I
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4460 - Software Testing and Empirical Methodologies

Additional Requirements

See Computer Science, BS for additional course work and GPA requirements.

Students must also complete the required 22 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

AI and Machine Learning certificate

This 12-hour certificate defines one of the specialization areas for Computer Engineering majors. This specialization explores the applications of AI and Machine Learning and the impacts of computer hardware in these areas

Requirements

- CSCE 2110 - Foundations of Data Structures

Select three courses from the following:

- CSCE 4200 - Web Search and Information Retrieval
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4380 - Data Mining
- CSCE 4890 - Directed Study

Applied Artificial Intelligence certificate

This 15-hour certificate is intended for non-CSE majors who have an interest in learning and applying artificial intelligence techniques and application in their own fields of study.

Majors in Computer Engineering, Computer Science, Artificial Intelligence, Cybersecurity, and/or Information Technology cannot pursue this certificate. The recommended certificate which fits those majors is the certificate in Artificial Intelligence

Required Courses

- CSCE 1010 - Discovering Computer Science
- CSCE 1030 - Computer Science I
- CSCE 3201 - Applied Artificial Intelligence
- CSCE 3214 - Software Development for Artificial Intelligence
- CSCE 4890 - Directed Study
- or any upper level (3000-4000) AI-related course from inside or outside the department, chosen in consultation with an advisor

Artificial Intelligence certificate

A 12-hour professional certificate in artificial intelligence.

Required courses

- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning

Choose two courses from the following:

- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4300 - Intro to Big Data and Data Science
- CSCE 4890 - Directed Study
- CSCE 3214 - Software Development for Artificial Intelligence
- CSCE 3222 - AI for Game Development
- CSCE 4380 - Data Mining

Communication and Networks certificate

This 12-hour certificate defines one of the Specializations available to computer Engineering majors. This particular certificate involves the design and development of components for Communications systems and components used in networking large systems of computing nodes and servers.

Requirements

- CSCE 3020 - Communications Systems

Select 3 courses from the following:

- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 4510 - Introduction to Wireless Communications
- CSCE 4520 - Wireless Networks and Protocols
- CSCE 4530 - Computer Network Design
- CSCE 4560 - Secure Electronic Commerce
- CSCE 4890 - Directed Study

Computer Systems certificate

This 12-hour certificate defines one of the available specialization areas for Computer Engineering majors who are interested in the design of large-scale and parallel computing systems, as well as other advanced architectures

Requirements

- CSCE 3610 - Introduction to Computer Architecture

Choose three from the following courses:

- CSCE 4050 - Applications of Cryptography
- CSCE 4160 - Parallel Programming
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4610 - Computer Architecture
- CSCE 4620 - Real-Time Operating Systems
- CSCE 4650 - Introduction to Compilation Techniques
- CSCE 4730 - VLSI Design

Computing Administration certificate

This 18-hour academic certificate will prepare students to administer computer systems and servers in a networked environment, including database systems and servers.

Requirements

- CSCE 3530 - Introduction to Computer Networks
- CSCE 3600 - Principles of Systems Programming
- CSCE 3605 - Systems Administration
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4355 - Database Administration
- CSCE 4535 - Introduction to Network Administration

Cybersecurity certificate

This academic certificate is offered by the Department of Computer Science and Engineering the University of North Texas. It provides students with skills needed to work in the area of cyber security.

Undergraduate students can request this certificate to be added to their degree plan by an academic advisor. This certificate will appear on the student's transcript upon graduation. This certificate is open to all majors in accordance with UNT catalog requirements.

NOTE: Additional prerequisite courses may be required.

Courses, 18 hours

Students must obtain a grade of C or better.

- CJUS 3320 - Corporate Security and Loss Prevention
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3560 - Cloud Security
- CSCE 4555 - Computer Forensics
- CSCE 4570 - Information Privacy

Game Programming certificate

The certificate in game programming is designed to prepare undergraduate students to launch careers as programmers in the video game industry.

Required courses, 12 hours

- CSCE 4210 - Game Programming I
- CSCE 4220 - Game Programming II
- CSCE 4255 - Programming Math and Physics for Games

Pick one course from:

- CSCE 2210 - Introduction to Visual Scripting for Games
- CSCE 3222 - AI for Game Development
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4250 - Topics in Game Development

Real-Time and Embedded Systems certificate

This 12-hour certificate defines one of the core specialization areas in the Computer Engineering Program as it relates to systems designed with embedded microprocessors, as well as those that control real-time processes

Requirements

- CSCE 3612 - Embedded Systems Design

Select Three courses from the following:

- CSCE 3444 - Software Engineering
- CSCE 4440 - Real-Time Software Development
- CSCE 4610 - Computer Architecture
- CSCE 4620 - Real-Time Operating Systems
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study

Secure Software certificate

This 15-hour certificate provides students with the skills to develop secure software systems and applications

Requirements

- CSCE 3550 - Foundations of Cybersecurity
- CSCE 4357 - Database Systems Security
- CSCE 4565 - Secure Software Development
- CSCE 4570 - Information Privacy
- CSCE 4575 - Blockchain and Applications

Software Engineering certificate

This 12-hour certificate gives students the core skills used by Software Engineers in planning, designing and implementing large scale software systems and applications.

Requirements

- CSCE 3055 - IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3444 - Software Engineering
- CSCE 4665 - Usability Testing in Software Engineering

VLSI and Electronics certificate

This 12-hour certificate defines one of the specialization areas that must be selected by Computer Engineering Majors. This specialization involves the design of chip-level electronic components for use in computing and automation systems.

Requirements

- CSCE 3610 - Introduction to Computer Architecture

Select three courses from the following:

- CSCE 3730 - Reconfigurable Logic
- CSCE 4610 - Computer Architecture
- PHYS 4500 - Introduction to Solid-State Physics
- CSCE 4750 - VLSI Testing
- CSCE 4890 - Directed Study

Web Development certificate

This 12-hour certificate will prepare students to administer and develop web-based applications including those with payment portals and extensive human interface requirements.

Requirements

- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 4200 - Web Search and Information Retrieval
- CSCE 4560 - Secure Electronic Commerce

Department of Electrical Engineering

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Shengli Fu, Chair

Faculty

The Department of Electrical Engineering at the University of North Texas provides an innovative program in electrical engineering, combining cognitive skills, industry-university joint projects and business skills with courses that form the foundation of the electrical engineering discipline. Combining theory and practice, the curriculum is designed to serve the citizens and industries in Texas, particularly the North Texas region, and the nation.

The department is housed in a facility designed to promote intellectual and scholarly endeavors of faculty and students. The department currently offers a Bachelor of Science degree, a Master of Science degree and a Doctor of Philosophy degree, each with a major in electrical engineering. In conjunction with Texas Woman's University, the department offers a dual Bachelor of Science degree with majors in electrical engineering and mathematics. It also offers an undergraduate minor in electrical engineering. Research interests of the faculty include digital signal processing; image processing; pattern recognition; wireless sensor networks; systems and control; analog, RF and mixed signal design; VLSI design; wireless communication.

The department received support from the National Science Foundation to offer an "Innovative Design- and Project-Oriented Electrical Engineering Program" under the Department-Level Reform initiative.

The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET (415 North Charles Street, Baltimore, MD 21201; 410-347-7700).

Mission

The Department of Electrical Engineering constantly strives to further the mission of the University of North Texas. The program educational objectives of the Bachelor of Science with a major in electrical engineering program (BSEE program) have been developed to accomplish the university mission.

Program Educational Objectives

1. Our graduates will be productive and valuable professionals in electrical engineering and related fields.
2. Our graduates will engage in life-long learning demonstrated by advanced education/degrees, professional development activities, and/or other career-enhancing activities.
3. Our graduates will be successful in taking leadership roles at various levels in their professional careers in academia or industry.

Our innovative bachelor's program is designed to satisfy the ABET criteria for accreditation of engineering programs.

Student outcomes

Upon completion of the Bachelor of Science with a major in electrical engineering program, students will be able to achieve the following outcomes:

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. communicate effectively with a range of audiences;
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

The BSEE program curriculum is designed to ensure that each undergraduate course achieves one or more of the above outcomes, and the curriculum, as a whole, achieves all student outcomes. Additionally, the undergraduate curriculum aims to enrich our students' educational experience at UNT.

Research and scholarship

In order to accomplish the objectives in pursuing excellence in scholarly and applied research, the faculty of the department is committed to:

- establishing high standards for research and scholarship,
- fostering excellence and diversity in research,
- creating an inspiring academic environment for the students through integration of research and education, and
- serving the society and the profession through technological advances in basic and applied research.

Majors

Electrical Engineering, BS

The Bachelor of Science with a major in electrical engineering program provides an innovative and project-oriented curriculum that incorporates the best practices of a real-world engineering education from areas including electronics, control systems, communication systems, computer systems, very large-scale integration design, electromagnetics and signal processing.

The Bachelor of Science degree with a major in electrical engineering is an innovative undergraduate program designed to combine the best practices in electrical engineering education. This design- and project-oriented program integrates concepts, analysis, design and development of state-of-the-art electrical and electronic systems. Through course work, students have "learning-to-learn" experiences and work on hands-on design projects every semester. This active learning experience emphasizes knowledge and skills so that students can solve real-world electrical engineering problems. The one-year sequence of business and marketing courses encourages students to develop a global markets outlook.

The courses in the program are designed to cover both the breadth and depth of electrical engineering. The breadth of the curriculum is provided through course work in circuits, signals and systems, logic design, electromagnetics, electronics, communications, and analog and digital design projects. The depth of the curriculum is provided through courses in electronics, computer organization, computer networks, VLSI design and advanced elective courses. Project courses in digital signal processing and communication system design provide additional depth. The design projects are integrated into the course work so that students can learn to solve practical engineering problems in a creative and relevant setting. In addition, project courses ensure that students have an opportunity to solve multidisciplinary engineering problems by working in teams and to develop effective oral and written communication skills.

The program also puts a strong emphasis on studies in art, business, management, humanities, physics and chemistry, social sciences, professionalism and engineering ethics, which fulfill objectives appropriate to the electrical engineering profession.

Degree requirements

Hours required and general/college requirements

A minimum of 128 semester hours, of which 42 must be advanced courses, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and in the College of Engineering section of this catalog.

Major requirements

A minimum of 39 semester hours of coursework, including:

- EENG 2610 - Circuit Analysis
- EENG 2620 - Signals and Systems
- EENG 2710 - Digital Logic Design
- EENG 3410 - Engineering Electromagnetics
- EENG 3510 - Electronics I (Devices and Materials)
- EENG 3520 - Electronics II
- EENG 3710 - Computer Organization
- EENG 3810 - Communications Systems

Five EENG 4000-level electives chosen from:

- EENG 4010 - Topics in Electrical Engineering
- EENG 4210 - Machine Learning
- EENG 4310 - Control Systems Design
- EENG 4320 - Systems Modeling and Simulation
- EENG 4330 - Environmental Systems
- EENG 4340 - Environmental Monitoring
- EENG 4350 - Renewable Electrical Power Systems
- EENG 4410 - Microwave Engineering
- EENG 4450 - Micro-Electro-Mechanical-Systems (MEMS)
- EENG 4510 - Digital Communications
- EENG 4520 - Image and Video Communications
- EENG 4530 - Analog Integrated Circuit Design
- EENG 4580 - Power Electronics
- EENG 4610 - Digital Signal Processing
- EENG 4710 - VLSI Design
- EENG 4720 - Embedded Controller Organization
- EENG 4740 - Digital Circuit Design Techniques
- EENG 4760 - Reconfigurable Computing
- EENG 4810 - Computer Networks
- EENG 4820 - Wireless Communications
- EENG 4850 - Computer Vision and Image Analysis
- EENG 4900 - Special Problems in Electrical Engineering

Project and Laboratory courses, 27 hours

- EENG 1910 - Introduction to Electrical Engineering
- EENG 2611 - Circuit Analysis Lab
- EENG 2621 - Signals and Systems Lab
- EENG 2711 - Digital Logic Design Lab
- EENG 2905 - Engineering Tools
- EENG 2920 - Analog and Digital Circuit Design Project
- EENG 3411 - Engineering Electromagnetics Lab
- EENG 3511 - Electronics I Lab
- EENG 3811 - Communication Systems Lab
- EENG 3910 - Embedded System Design Project
- EENG 3920 - Modern Communication System Design Project
- EENG 4910 - Senior Design I
- EENG 4990 - Senior Design II

Other required courses

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1415 - General Chemistry for Engineering Majors and
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors

- CSCE 1030 - Computer Science I

  and
- CSCE 1015 - Computing Tools and Techniques Laboratory

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  OR
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  *Completion of MATH 1810/1820/1830 with grades of "C" or better may substitute for MATH 1710/1720.

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3180 - Probability for Engineers
- MATH 3410 - Differential Equations I

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- TECM 2700 - Technical Writing

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Engineering.

Other requirements

Department policies

Policy on Academic Performance, Progression and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective and specialization courses.

A student must maintain good academic standing within the university. Please see “Academic status” and “Regulations governing students under academic suspension” in the Academics section of this catalog.”

Certificates

Electrical Engineering students MAY choose a specific area to focus on during their undergraduate studies. (12 hours minimum)

COMMUNICATION SYSTEMS

- EENG 3920 - Modern Communication System Design Project (required)

And choose THREE of the following courses:

- EENG 4610 - Digital Signal Processing
- EENG 4510 - Digital Communications
- EENG 4820 - Wireless Communications
- EENG 4520 - Image and Video Communication
- EENG 4810 - Computer Networks
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor

SIGNAL PROCESSING AND CONTROL

- EENG 3910 - DSP System Design Project (required)

And choose THREE of the following:

- EENG 4210 - Machine Learning
- EENG 4310 - Control Systems Design
- EENG 4320 - Systems Modeling and Simulation
- EENG 4610 - Digital Signal Processing
- EENG 4850 EENG 4850 - Computer Vision and Image Analysis
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor

RF AND CIRCUIT DESIGN

- EENG 3520 - Electronics II (required)

And choose THREE of the following:

- EENG 4410 - Microwave Engineering
- EENG 4450 - Micro-electrical-mechanical Systems
- EENG 4530 - Analog Integrated Circuit Design
- EENG 4580 - Power Electronics
- EENG 4710 - VLSI Design
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor

DIGITAL SYSTEMS

- EENG 3910 - DSP System Project (required)

And choose THREE of the following:

- EENG 4710 - VLSI Design
- EENG 4720 - Embedded Controller Organization
- EENG 4740 - Digital Circuit Design Techniques
- EENG 4760 - Reconfigurable Computing
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CSCE 1015 - Computing Tools and Techniques Laboratory	1 hour	EENG 2710 - Digital Logic Design	3 hours
CSCE 1030 - Computer Science I	3 hours	EENG 2711 - Digital Logic Design Lab	1 hour
EENG 1910 - Introduction to Electrical Engineering	3 hours	MATH 1720 - Calculus II	3 hours
MATH 1710 - Calculus I	4 hours	PHYS 1710 - Mechanics	3 hours
Communication Core	3 hours	PHYS 1730 - Laboratory in Mechanics	1 hour
CHEM selection*	4 hours	TECM 2700 - Technical Writing	3 hours
		Language, Philosophy and Culture core	3 hours
Total	18 hours	Total	17 hours

Year 2

Semester 1		Semester 2	
EENG 2610 - Circuit Analysis	3 hours	EENG 2620 - Signals and Systems	3 hours
EENG 2611 - Circuit Analysis Lab	1 hour	EENG 2621 - Signals and Systems Lab	1 hour
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	EENG 2920 - Analog and Digital Circuit Design Project	3 hours
MATH 3410 - Differential Equations I	3 hours	MATH 2730 - Multivariable Calculus	3 hours
PHYS 2220 - Electricity and Magnetism	3 hours	American History core	3 hours
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	Political Science core	3 hours
Total	14 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
EENG 3410 - Engineering Electromagnetics	3 hours	EENG 3520 - Electronics II	3 hours
EENG 3411 - Engineering Electromagnetics Lab	1 hour	EENG 3710 - Computer Organization	3 hours
EENG 3510 - Electronics I (Devices and Materials)	3 hours	EENG 3810 - Communications Systems	3 hours
EENG 3511 - Electronics I Lab	1 hour	EENG 3811 - Communication Systems Lab	1 hour
EENG 3910 - Embedded System Design Project	3 hours	EENG 3920 - Modern Communication System Design Project	3 hours
MATH 3180 - Probability for Engineers	3 hours	American History core	3 hours
Creative Arts core	3 hours		
Total	17 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
EENG 4910 - Senior Design I	3 hours	EENG 2905 - Engineering Tools	3 hours
Political Science core	3 hours	EENG 4990 - Senior Design II	3 hours
EENG elective-4000 level	3 hours	Social and Behavioral Sciences core	3 hours
EENG elective-4000 level	3 hours	EENG elective-4000 level	3 hours
EENG elective-4000 level	3 hours	EENG elective-4000 level	3 hours
Total	15 hours	Total	15 hours

Notes

*See “Other required courses” above.

Grad Track Options

Electrical Engineering, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Electrical Engineering, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Electrical Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student’s academic progress in meeting both bachelor’s and master’s degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor’s degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master’s degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor’s degree program. The following courses may apply to the grad track, with approval from the undergraduate and graduate coordinators of the respective programs.

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)

- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection of Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineering
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MSET 5020 – Design of Experiments
- MSET 5030 – Product Design and Development
- MSET 5040 – Analytical Methods in Engineering Technology
- MSET 5120 – Computer-Integrated Manufacturing
- MSET 5150 – Applications of Electron Microscopy and Failure Analysis
- MSET 5160 – Creep and Fatigue in Engineering Design and Systems Performance
- MSET 5200 – Advanced Construction Scheduling
- MSET 5220 – Building Information Modeling
- MSET 5230 – Risk Management in Construction
- MSET 5800 – Studies in Engineering Technology
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Advanced Manufacturing Processes and Technologies
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Electrical Engineering, BS must also be completed. Other graduate courses may be applied to the Electrical Engineering, BS and Biomedical Engineering, MS with consent of the departments.

Electrical Engineering, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students majoring in electrical engineering.

In this grad track option, the student can take a maximum of nine (9) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Admission requirements

- A cumulative GPA of 3.5 or higher is required at the time of application

To apply, students should submit the following to the grad track coordinator of the department before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate and graduate coordinators.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the MS program in electrical engineering, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the MS program in electrical engineering.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as EE electives to meet the BS degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the BS within one year of the first graduate level course he or she takes.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the BS degree and maintained a GPA of 3.0 or higher, he or she will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her BS degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted anymore for the MS degree even if the student comes back to graduate school in the future.

Program requirements

The student is required to take any three graduate courses from the courses listed below in the senior year of the program (may be changed only if approved by both the EE undergraduate and graduate coordinators):

- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5410 - Microwave Engineering
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5540 - Digital Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Electrical Engineering, BS.

After receiving his or her BS degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Electrical Engineering, BS with grad track option leading to Electrical Engineering, PhD

Admission requirements

The following is the step-by-step process:

1. Students should apply for the Super Grad Track option in the junior year (completed at least 75 credit hours with GPA of 3.5 or higher).
2. After the application is approved and have completed at least 90 credit hours, the students can start taking the graduate courses that are approved for Super Grad Track as EE electives for the BS degree requirement. For the graduate courses to be counted for the PhD degree later, the student must meet the minimum grade requirements of the courses in the PhD program.
3. The student should apply to Toulouse Graduate School within the first semester of the senior year. The student needs to submit online application and all required documents for admission in the PhD in EE program.
4. The students must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will not be counted anymore for the PhD degree even if the student comes back for graduate school in the future.
5. Students in Grad Track program can apply to transfer to Super Grad Track program anytime with departmental approval.
6. Once admitted to the PhD program, the students will have higher priority for funding (research and teaching assistantships) to support PhD study.

Electrical Engineering, BS with grad track option leading to Semiconductor Manufacturing Engineering, MS

The Semiconductor Manufacturing Engineering, MS program is an interdisciplinary program that prepares students for the vital and growing semiconductor industry. This cross-departmental grad track pathway will allow students in the Electrical Engineering, BS program to combine the knowledge they gained through their BS degree with advanced education in semiconductor manufacturing.

This grad track pathway provides the opportunity for any qualified Electrical Engineering, BS (EENG-BS) student to complete a Master's in Semiconductor Manufacturing Engineering (SCME-MS). Students can transfer up to 9 approved credits from their EENG-BS degree to the SCME-MS program.

Admission requirements

Students applying to the grad track option should be majors in the Electrical Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program Requirements

The student is allowed to take three of the graduate courses listed below in the senior year of the program for a total of 9 hours. These courses may be changed only if approved by both the Electrical Engineering undergraduate and Semiconductor Manufacturing Engineering graduate coordinators.

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Electrical Engineering, BS.

After receiving their bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in semiconductor manufacturing engineering *(see Graduate Catalog)*.

- EENG 5320 Systems Modeling and Simulation
- EENG 5520 Design and Testing of Digital Systems
- EENG 5530 Analog Integrated Circuit Design
- EENG 5540 Digital IC Design
- EENG 5410 Microwave Engineering

Program Policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Minors

Electrical Engineering minor

A minor in electrical engineering requires a total of 18 semester hours of electrical engineering courses, including 6 hours of advanced courses. Six hours of advanced courses must be taken at UNT.

Required courses

- EENG 2610 - Circuit Analysis
- EENG 2611 - Circuit Analysis Lab
- EENG 2620 - Signals and Systems
- EENG 2621 - Signals and Systems Lab
- EENG 2710 - Digital Logic Design
- EENG 2711 - Digital Logic Design Lab
- EENG 3510 - Electronics I (Devices and Materials)
- One EE elective. (EE electives are defined as 4000-level organized EE courses, including EENG 4010 and EENG 4900 but excluding EENG 4910, EENG 4920, EENG 4951 and EENG 4990.)

Undergraduate Academic Certificates

Communication Systems certificate

This certificate provides students with an opportunity to explore areas ranging from computer networks to digital signal processing to digital, wireless, image and video communications. The courses covered under this certificate will help students have a thorough understanding of the overall design and working of communications systems, provide in-depth knowledge of wireless and mobile networks, network layers and protocols, design and analysis of digital communication systems, modern digital signal processing theory and techniques, and video coding, motion estimation, source and channel coding.

Requirements

Communication Systems

- EENG 3920 - Modern Communication System Design Project (required)

And chose THREE of the following courses:

- EENG 4510 - Digital Communications
- EENG 4520 - Image and Video Communications
- EENG 4610 - Digital Signal Processing
- EENG 4810 - Computer Networks
- EENG 4820 - Wireless Communications
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor.

Digital Systems certificate

This certificate provides students with an opportunity to explore areas ranging from digital circuit design to embedded systems to VLSI design to reconfigurable computing. The courses covered under this certificate will help students have a thorough understanding of modern digital circuit implementation technologies, embedded systems, memory systems, CMOS design, circuit characterization, fine-grained and coarse-grained reconfigurable architectures.

Requirements

Digital Systems

- EENG 3910 - Embedded System Design Project (required)

And choose THREE of the following:

- EENG 4710 - VLSI Design
- EENG 4720 - Embedded Controller Organization
- EENG 4740 - Digital Circuit Design Techniques
- EENG 4760 - Reconfigurable Computing
- Other 4000-level EENG courses MAY be approved by the department undergraduate faculty advisor.

RF and Circuit Design certificate

This certificate provides students with an opportunity to explore areas ranging from digital and analog integrated circuit design to microwave engineering to VLSI Design to micro-electro-mechanical systems (MEMS) to power electronics. The courses covered under this certificate will help students have a thorough understanding of design and analysis of digital, analog and mixed-signal integrated circuits, design and fabrication of RF/microwave circuits, MEMS structures and devices and their applications.

Requirements

RF and Circuit Design

- EENG 3520 - Electronics II (required)

And choose THREE of the following:

- EENG 4410 - Microwave Engineering
- EENG 4450 - Micro-Electro-Mechanical-Systems (MEMS)
- EENG 4530 - Analog Integrated Circuit Design
- EENG 4580 - Power Electronics
- EENG 4710 - VLSI Design
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor.

Signal Processing and Control certificate

This certificate provides students with an opportunity to explore areas ranging from digital signal processing to control system design to systems modeling to machine learning. The courses covered under this certificate will help students have a thorough understanding of modern digital signal processing theory and techniques, linear and non-linear systems, optimal control, system stability, theory and practice of machine learning, mathematical principles of computer vision and applications.

Required courses

- EENG 3910 - Embedded System Design Project (required)

And choose THREE of the following:

- EENG 4210 - Machine Learning
- EENG 4310 - Control Systems Design
- EENG 4320 - Systems Modeling and Simulation
- EENG 4610 - Digital Signal Processing
- EENG 4850 - Computer Vision and Image Analysis
- Other 4000-level EENG courses MAY be approved by the departmental undergraduate faculty advisor.

Department of Materials Science and Engineering

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Jincheng Du, Chair

Faculty

The Department of Materials Science and Engineering addresses the education and technological challenges of creating, applying and characterizing new materials for the 21st century. The Department of Materials Science and Engineering is committed to training students at the undergraduate and graduate levels in all aspects of modern materials including metals, ceramics, polymers, electronic and optical materials, and materials characterization. Students have opportunities for hands-on instruction and research with modern equipment and facilities. The department has strong collaborative programs with industries in the Dallas–Fort Worth region and with universities both locally and throughout the world.

The department offers bachelor's, master's and doctoral degrees, all with a major in materials science and engineering. Presently, the department has 18 tenured or tenure track faculty who divide their time between teaching and research in the different areas mentioned above. Research support comes from a variety of federal, state and industrial entities. The department has one of the most advanced analytical characterization facilities in the country, and both undergraduate and graduate students receive training on state-of-the-art equipment. Finally, the department has strong connections with industry and national research laboratories for cooperative education experiences and internships so that students can receive practical training in addition to classroom and laboratory instruction.

Students who graduate with a Bachelor of Science with a major in materials science and engineering can expect a very healthy job market and relatively high starting salaries in a variety of industries. In fact, materials science and engineering graduates are heavily sought after by industries of all types, including automotive, chemical, aerospace, microelectronics, magnetic storage, medical, transportation, sports, defense, forensics and manufacturing. A BS with a major in materials science and engineering also prepares students for continuing their education with a master's or a doctoral degree either in materials science and engineering or in a related field.

The materials science and engineering program is accredited by the Engineering Accreditation Commission of ABET (415 North Charles Street, Baltimore, MD 21201; 410-347-7700).

Vision and mission

The vision of the Department of Materials Science and Engineering at the University of North Texas is to have a world-class materials science and engineering research program with local, national and international scientific and technological impact; to provide an outstanding educational experience for a diverse student population; and to provide a collegial environment for students, staff and faculty.

The mission of the Department of Materials Science and Engineering is to provide a high-quality engineering education to our diverse student population by maintaining a balance between the theoretical and applied aspects of materials science and engineering through course work, laboratories and independent research topics. The department provides national and international leadership in research and scholarship, and strives to build mutually beneficial partnerships with both internal and external collaborators, with alumni and with the professional and business communities. The department mission is aligned with the mission of the University of North Texas. Finally, the department facilitates a collegial atmosphere that is conducive to the intellectual and scholarly pursuits of its faculty and students.

Program educational objectives

1. Graduates will have successful careers in materials science and engineering or related disciplines.
2. Graduates will successfully participate in continuing education or education towards advanced degrees.

Student outcomes

Our student outcomes mirror the ABET outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics. (ABET 1)
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors. (ABET 2)
3. An ability to communicate effectively with a range of audiences. (ABET 3)
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts. (ABET 4)
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives (ABET 5)
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (ABET 6)
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. (ABET 7)

Research

The department has an active and robust research portfolio that ranges from fundamental studies to application-oriented development programs. These research activities span economic sectors ranging from aerospace applications to electronic devices to biomaterials, and integrate both computational and experimental approaches. The department strives to create a learning environment, which includes multiple opportunities for research with integration of education and research activities. Students develop and practice teamwork and leadership skills and expand their professional networks for future employment through research and internship programs with industry and national laboratories. In these programs, it is common to find both undergraduate and graduate students engaged together in diverse research teams in laboratories and centers/institutes, including the following.

Laboratories

- The Laboratory of Polymers and Composites
- Laboratory for Moving Mechanical Assemblies
- Laboratory for Laser Materials Synthesis and Fabrication
- Laboratory for Computational Materials Modeling
- Laboratory for Electronic Materials and Devices
- Advanced Metallic Materials and Manufacturing Processes (AM3P) Laboratory
- The Materials Synthesis and Processing Laboratory
- The Optoelectronic and Thin Films Laboratory
- Structural Metallic Materials Laboratory

Centers/Institutes

- Advanced Materials and Manufacturing Processing Institute
- Additive Manufacturing Laboratory
- NSF Center for Friction Stir Welding
- UNT Materials Research Facility
- ARL South Campus Research Center

Majors

Materials Science and Engineering, BS

A Bachelor of Science with a major in materials science and engineering from the University of North Texas will prepare you to enter fast-emerging fields with relatively high starting salaries. Students who earn the degree enjoy being part of a close-knit professional community that bridges disciplines, such as applied physics and chemistry, in order to solve complex engineering problems.

The Bachelor of Science degree with a major in materials science and engineering is designed to provide students with the fundamental principles of how materials are made, how they behave during application, how their structure and properties are measured and quantified, and how to improve the performance of these materials. This information is then used in "materials-specific" courses and hands-on laboratories where students then learn to apply these principles to the different materials classes, namely, metals, ceramics, polymers, electronic materials and biomaterials. Students also learn about nanotechnology and how it is impacting the materials science and engineering discipline. During their last year, students are required to do a senior project with one of the faculty members who specialize in their primary area of interest. Students work either individually or in small groups on projects that provide them with research experiences that help them determine whether they feel better suited to finish their education and go to industry or continue on to graduate school. The course work instills in students ethical and environmental issues and standards expected by industry and society.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 45 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Engineering requirements.

Major requirements, 53 hours

- MTSE 1100 - Discover How and Why Materials "Matter"
- MTSE 3010 - Bonding and Structure
- MTSE 3020 - Microstructure and Characterization of Materials
- MTSE 3030 - Thermodynamics and Phase Diagrams
- MTSE 3040 - Transport Phenomena in Materials
- MTSE 3050 - Mechanical Properties of Materials
- MTSE 3060 - Phase Transformations in Materials
- MTSE 3070 - Electrical, Optical and Magnetic Properties of Materials
- MTSE 3080 - Materials Processing
- MTSE 3090 - Materials Science and Engineering Laboratory I
- MTSE 3100 - Materials Science and Engineering Laboratory II
- MTSE 3110 - Materials Aspects of Quantum Mechanics
- MTSE 4010 - Physical Metallurgy Principles
- MTSE 4030 - Ceramic Science and Engineering
- MTSE 4050 - Polymer Science and Engineering
- MTSE 4060 - Materials Selection and Performance
- MTSE 4090 - Senior Design I
- MTSE 4100 - Senior Capstone Project
- MTSE electives chosen from MTSE 4020, MTSE 4040, MTSE 4070 (6 hours)

Other required courses

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- ENGR 2301 - Statics
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- MTSE 3000 - Fundamentals of Materials Science and Engineering - I
- MTSE 3001 - Fundamentals of Materials Science and Engineering - II
- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism
- TECM 2700 - Technical Writing

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (45) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Engineering.

Other requirements

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student making grades lower than C two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1410 - General Chemistry I for Science Majors	3 hours	CHEM 1420 - General Chemistry II for Science Majors	3 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	MATH 1720 - Calculus II	3 hours
MATH 1710 - Calculus I	4 hours	PHYS 1710 - Mechanics	3 hours
MTSE 1100 - Discover How and Why Materials "Matter"	3 hours	PHYS 1730 - Laboratory in Mechanics	1 hour
Communication Core	3 hours	TECM 2700 - Technical Writing	3 hours
		Language, Philosophy and Culture core	3 hours
Total	14 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ENGR 2301 - Statics	3 hours	MATH 3410 - Differential Equations I	3 hours
MATH 2730 - Multivariable Calculus	3 hours	MTSE 3001 - Fundamentals of Materials Science and Engineering - II	3 hours
MTSE 3000 - Fundamentals of Materials Science and Engineering - I	3 hours	MTSE 3110 - Materials Aspects of Quantum Mechanics	3 hours
PHYS 2220 - Electricity and Magnetism	3 hours	American History core	3 hours
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	Political Science core	3 hours
Creative Arts core	3 hours		
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MTSE 3010 - Bonding and Structure	3 hours	MTSE 3050 - Mechanical Properties of Materials	3 hours
MTSE 3020 - Microstructure and Characterization of Materials	3 hours	MTSE 3060 - Phase Transformations in Materials	3 hours
MTSE 3030 - Thermodynamics and Phase Diagrams	3 hours	MTSE 3070 - Electrical, Optical and Magnetic Properties of Materials	3 hours
MTSE 3040 - Transport Phenomena in Materials	3 hours	MTSE 3080 - Materials Processing	3 hours
MTSE 3090 - Materials Science and Engineering Laboratory I	1 hour	MTSE 3100 - Materials Science and Engineering Laboratory II	1 hour
American History core	3 hours	Political Science core	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MTSE 4010 - Physical Metallurgy Principles	3 hours	MTSE 4050 - Polymer Science and Engineering	3 hours
MTSE 4030 - Ceramic Science and Engineering	3 hours	MTSE 4100 - Senior Capstone Project	3 hours
MTSE 4060 - Materials Selection and Performance	3 hours	MTSE elective	3 hours
MTSE 4090 - Senior Design I	3 hours	MTSE elective	3 hours
Social and Behavioral Sciences core	3 hours		
Total	15 hours	Total	12 hours

Grad Track Options

Materials Science and Engineering, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Materials Science and Engineering, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Materials Science and Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. The following courses may apply to the grad track, with approval from the undergraduate and graduate coordinators from the respective programs.

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)

- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 - Bioinformatics Algorithms
- CSCE 5820 - Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5220 - Building Information Modeling
- EMGT 5230 - Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 - Design of Experiments
- MEEN 5030 - Product Design and Development
- MEEN 5110 - Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 - Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5180 - Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convective Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 - Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Materials Science and Engineering, BS must also be completed. Other graduate courses may be applied to the Materials Science and Engineering, BS and Biomedical Engineering, MS with consent of the departments.

Materials Science and Engineering, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Materials Science and Engineering, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses,

the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The students' application will be reviewed by the undergraduate coordinator in Materials Science and Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Materials Science and Engineering, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Materials Science and Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Materials Science and Engineering, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Materials Science and Engineering, BS with grad track option leading to Materials Science and Engineering, MS

The Department of Materials Science and Engineering offers a grad track option for currently enrolled UNT undergraduate students majoring in materials science and engineering.

In this grad track option, the student can take a maximum of nine (9) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the materials science and engineering BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.3 or higher is required at the time of application
- An average GPA of 3.5 or higher for materials science core courses taken (MTSE 3010, MTSE 3030, MTSE 3050 and MTSE 3070)
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, he or she will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate level courses to replace electives in the BS degree:

- MTSE 5070 - Tribology of Materials
- MTSE 5200 - Advanced Concepts of Metallurgical Science
- MTSE 5300 - Science and Technology of Modern Ceramics
- MTSE 5400 - Advanced Polymer Physics and Chemistry
- MTSE 5560 - Compound Semiconductor Materials and Devices
- MTSE 5620 - Scanning Electron and Ion Microscopy
- MTSE 5710 - Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate and graduate advisors in materials science and engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for Materials Science and Engineering, BS must be completed.

Materials Science and Engineering, BS with grad track option leading to Materials Science and Engineering, PhD

This grad track option is a BS to PhD accelerated program for undergraduate students. The students can take a maximum of 12 credit hours of graduate courses while completing the BS degree. These credits will be counted toward first the BS and then, following graduation, be transferred to the PhD degree.

The following is the step-by-step process:

1. Student applies for the grad track to PhD option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and the student has completed at least 90 credit hours, the student can start taking the graduate courses that are approved for the grad track to PhD option as MTSE electives for the BS degree requirement. For the graduate courses to be counted toward the PhD degree later, the student must meet the minimum grade requirements of the courses in the PhD program.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. The student needs to submit online application and all required documents for admission to the PhD MTSE program.
4. The student must enroll in the graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student did not enroll in the graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will no longer be counted for the PhD degree even if the student comes back for graduate school in the future.
5. Students in the BS-to-MS grad track program can apply to transfer to the BS-to-PhD grad track program any time with departmental approval.
6. Once admitted to the PhD program, the student will have higher priority for funding (research and teaching assistantships) to support PhD study.

Program requirements

Students may choose up to 12 hours from the following list of courses:

- MTSE 5000 - Thermodynamics of Materials
- MTSE 5010 - Bonding, Structure and Crystallography
- MTSE 5020 - Mechanical Properties of Materials
- MTSE 5070 - Tribology of Materials
- MTSE 5200 - Advanced Concepts of Metallurgical Science
- MTSE 5300 - Science and Technology of Modern Ceramics
- MTSE 5400 - Advanced Polymer Physics and Chemistry
- MTSE 5500 - Electronic, Optical and Magnetic Materials
- MTSE 5520 - Physical and Chemical Basis of Integrated Circuit Fabrication
- MTSE 5560 - Compound Semiconductor Materials and Devices
- MTSE 5610 - Fundamentals of Surface and Thin Film Analysis
- MTSE 5620 - Scanning Electron and Ion Microscopy
- MTSE 5710 - Computational Materials Science

All remaining courses for Materials Science and Engineering, BS must be completed.

Materials Science and Engineering, BS with grad track option leading to Semiconductor Manufacturing Engineering, MS

The Semiconductor Manufacturing Engineering, MS program is an interdisciplinary program that prepares students for the vital and growing semiconductor industry. This cross-departmental grad track pathway will allow students in the Materials Science and Engineering, BS program to combine the knowledge they gained through their BS degree with advanced education in semiconductor manufacturing.

This grad track pathway provides the opportunity for any qualified Materials Science and Engineering, BS (MTSE-BS) student to complete a Master's in Semiconductor Manufacturing Engineering (SCME-MS). Students can transfer up to 9 approved credits from their MTSE-BS degree to the SCME-MS program.

Admission requirements

Students applying to the grad track option should be majors in the Materials Science and Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program Requirements

The student is allowed to take three of the graduate courses listed below in the senior year of the program for a total of 9 hours. These courses may be changed only if approved by both the Materials Science and Engineering undergraduate and Semiconductor Manufacturing Engineering graduate coordinators.

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Materials Science and Engineering, BS.

After receiving their bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in semiconductor manufacturing engineering *(see Graduate Catalog)*.

- MTSE 5000 Thermodynamics of Materials
- MTSE 5010 Bonding, Structure, and Crystallography
- MTSE 5020 Mechanical Properties of Materials
- MTSE 5070 Tribology of Materials

- MTSE 5100 Fundamental Concepts of Materials Science
- MTSE 5200 Advanced Concepts of Metallurgical Science
- MTSE 5210 Corrosion and Oxidation of Materials
- MTSE 5300 Science and Technology of Modern Ceramics
- MTSE 5400 Advanced Polymer Physics and Chemistry
- MTSE 5500 Electronic, Optical, and Magnetic Materials
- MTSE 5520 Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 Materials and Mechanics for MEMS Devices
- MTSE 5560 Compound Semiconductor Materials and Devices
- MTSE 5600 Materials Characterization

Program Policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Minors

Materials Science and Engineering minor

The minor in materials science and engineering requires a total of 18 semester credit hours:

Required

- MTSE 3000 - Fundamentals of Materials Science and Engineering - I
- Plus 15 hours of materials science and engineering courses, at least 6 of which should be chosen from the four core courses:

Core courses

- MTSE 3010 - Bonding and Structure
- MTSE 3030 - Thermodynamics and Phase Diagrams
- MTSE 3050 - Mechanical Properties of Materials
- MTSE 3070 - Electrical, Optical and Magnetic Properties of Materials

Additional requirements

The remaining hours can be from any other 3000- or 4000-level materials science engineering courses.

Department of Mechanical Engineering

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Kuruvilla John, Chair

Hamid Sadat, Associate Chair for Academic Affairs

Huseyin Bostanci, Associate Chair for Graduate Affairs

Hector Siller, Associate Chair for Undergraduate Affairs

Faculty

The Department of Mechanical Engineering at the University of North Texas was created in the fall of 2020 when the Department of Engineering Technology merged with the Department of Mechanical and Energy Engineering. The Department of Mechanical Engineering is committed to academic excellence in undergraduate and graduate education and research in all areas pertinent to the discipline of mechanical engineering and in particular to construction engineering, energy and engineering management. The goals of the department and its faculty are: (1) to provide high quality and innovative educational programs at the undergraduate and graduate levels; (2) to foster lifelong learning by promoting professionalism and ethical standards and helping students develop leadership qualities; (3) to pursue excellence in scholarly research in areas of mechanical engineering; and (4) to collaborate with engineers in industry, national laboratories, and government agencies in finding the solutions to national and global problems.

Degree programs

The department offers several undergraduate programs leading to the following degrees:

- Bachelor of Science in Engineering Technology (BSET) with a major in construction engineering technology
- Bachelor of Science (BS) with a major in construction management
- Bachelor of Science (BS) with a major in mechanical and energy engineering
- Bachelor of Science in Engineering Technology (BSET) with a major in mechanical engineering technology

Majors

Construction Engineering Technology, BSET

A Bachelor of Engineering Technology with a major in Construction Engineering Technology is an applied degree for a career in engineering featuring a unique 50/50 mix of construction engineering and construction management to make you competitive in today's construction industry. Build a full-scale modular house during your first year.

The construction engineering technology major provides educational experiences for the development of technical knowledge and skills necessary in today's construction industry. The program offers education in both the management and technical aspects, thus providing outstanding opportunities for sustainable employment. The program builds on a strong foundation in mathematics, science, engineering and general education. Knowledge and skills relative to the construction field such as surveying, cost estimating, construction materials, project scheduling, BIM, contracts and management, safety, and structures are acquired. Technical and management skills are enhanced through courses offered by other engineering technology programs and the College of Business. The development of technical communication and presentation skills is a requirement throughout the curriculum.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in Engineering Technology with a major in Construction Engineering Technology.

Hours required and general/college requirements

A minimum of 121 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering requirements.

Major requirements, 72 hours

72 hours, chosen with the advice of an academic advisor within the department.

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- BLAW 3430 - Legal and Ethical Environment of Business
- BLAW 4770 - Real Estate Law and Contracts
- CNET 1160 - Construction Methods and Materials
- CNET 2180 - Building Construction Techniques
- CMGT 2200 - Surveying for Construction
- CNET 2300 - Construction Graphics and Modeling
- CNET 3150 - Construction Contract Documents
- CNET 3160 - Construction Cost Estimating
- CNET 3190 - Construction Scheduling
- CNET 3410 - Occupational Safety and Liability
- CNET 3430 - Structural Analysis
- CNET 3440 - Steel Structures
- CNET 3460 - Soils and Foundations
- CNET 3480 - Structural Design with Concrete, Timber and Other Materials
- CNET 4170 - Construction Management
- CNET 4180 - Problems in Project Management
- CNET 4190 - Quality Management in Construction
- CNET 4620 - Advanced Design in Cold-Formed Steel Structures
- CNET 4790 - Senior Capstone
- DSCI 2710 - Data Analysis with Spreadsheets
- ECON 1100 - Principles of Microeconomics
- ENGR 2301 - Statics
- ENGR 2332 - Mechanics of Materials

Other requirements

- A grade of C or better is required for all major courses and elective courses counting toward the major.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Engineering.

Other requirements

Other courses needed are listed below:

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- ENGR 1030 - Technological Systems
- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

  and
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1720 - Calculus II

  or
- MATH 1830 - Calculus for Science and Engineering III
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism
- TECM 2700 - Technical Writing * (required instead of ENGL 1320)

Foundation course

CNET foundation courses are MATH 1710, PHYS 1710, PHYS 1730, ENGR 1030, TECM 2700, CNET 1160, CNET 2180, and CNET 2300.

Successful completion of foundation courses is based on achieving a C or higher in each course.

Major transfer policy

Students enrolled at UNT can transfer into Construction Engineering Technology if they have completed the following courses with a C or better and a cumulative GPA of at least 2.5. The courses are: MATH 1710, CNET 1160, ENGR 1030, PHYS 1710/PHYS 1730, CNET 2180, and TECM 2700.

Successful completion of foundation courses is based on achieving a C or higher in each course.

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, elective and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, elective and specialization courses.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog."

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1710 - Calculus I	4 hours	MATH 1720 - Calculus II	3 hours
CHEM 1410 - General Chemistry I for Science Majors	3 hours	PHYS 1710 - Mechanics	3 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	PHYS 1730 - Laboratory in Mechanics	1 hour
CNET 1160 - Construction Methods and Materials	3 hours	TECM 2700 - Technical Writing	3 hours
ENGR 1030 - Technological Systems	3 hours	CNET 2180 - Building Construction Techniques	3 hours
Communication Core	3 hours	American History core	3 hours
Total	17 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
PHYS 2220 - Electricity and Magnetism	3 hours	ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	CMGT 2200 - Surveying for Construction	3 hours
CNET 2300 - Construction Graphics and Modeling	3 hours	DSCI 2710 - Data Analysis with Spreadsheets	3 hours
ECON 1100 - Principles of Microeconomics	3 hours	ENGR 2332 - Mechanics of Materials	3 hours
ENGR 2301 - Statics	3 hours	Government & Political Science core	3 hours
American History core	3 hours		
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CNET 3150 - Construction Contract Documents	3 hours	CNET 3190 - Construction Scheduling	3 hours
CNET 3160 - Construction Cost Estimating	3 hours	CNET 3440 - Steel Structures	3 hours
CNET 3430 - Structural Analysis	3 hours	CNET 3460 - Soils and Foundations	3 hours
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	CNET 3410 - Occupational Safety and Liability	3 hours
Government & Political Science core	3 hours	Language, Philosophy & Culture core	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CNET 3480 - Structural Design with Concrete, Timber and Other Materials	3 hours	CNET 4180 - Problems in Project Management	3 hours
CNET 4170 - Construction Management	3 hours	CNET 4620 - Advanced Design in Cold-Formed Steel Structures	3 hours
BLAW 4770 - Real Estate Law and Contracts	3 hours	CNET 4190 - Quality Management in Construction	3 hours
Creative Arts core	3 hours	CNET 4790 - Senior Capstone	3 hours
		Elective	3 hours
Total	12 hours	Total	15 hours

Construction Management, BS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Engineering requirements.

Major requirements

Major of 55 hours, including:

- CNET 1160 - Construction Methods and Materials
- CNET 2180 - Building Construction Techniques
- CMGT 2200 - Surveying for Construction
- CNET 2300 - Construction Graphics and Modeling
- CMGT 2304 - Statics and Strength of Materials
- CNET 3150 - Construction Contract Documents
- CNET 3160 - Construction Cost Estimating
- CNET 3190 - Construction Scheduling
- CNET 3410 - Occupational Safety and Liability
- CMGT 3435 - Structural Analysis
- CMGT 3445 - Steel Structures
- CMGT 3465 - Soils and Foundations
- CMGT 3485 - Structural Design with Concrete, Timber and other Materials
- CNET 4170 - Construction Management
- CNET 4180 - Problems in Project Management
- CNET 4190 - Quality Management in Construction
- CMGT 4630 - Construction Management for Mechanical, Electrical and Plumbing (MEP) Systems
- CMGT 4795 - Senior Capstone
- CMGT 4920 - Cooperative Education Internship

Other course requirements

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- BLAW 3430 - Legal and Ethical Environment of Business
- BLAW 4770 - Real Estate Law and Contracts
- ECON 1100 - Principles of Microeconomics
- ENGR 1030 - Technological Systems
- MGMT 3820 - Management Concepts
- MGMT 3850 - Foundations of Entrepreneurship

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- 3 additional hours of tech elective in consultation with advisor
- MATH 1190 - Business Calculus

  or
- MATH 1710 - Calculus I

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Engineering.

Other requirements

A grade of C or better is required for all major courses and elective courses counting toward the major.

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

Each semester, students are required to take engineering foundation courses and/or prerequisites to the engineering foundation courses until all foundation courses are successfully completed. Successful completion is a 2.5 GPA for all engineering foundation courses with a C or better in each course.

Successful completion of the foundation courses is required for enrollment in all 3000 and 4000 level courses.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CNET 1160 - Construction Methods and Materials	3 hours	CNET 2180 - Building Construction Techniques	3 hours
ENGR 1030 - Technological Systems	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
MATH requirement	3 hours	American History core	3 hours
PHYS I requirement	4 hours	PHYS II requirement	4 hours
Total	16 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	CMGT 2200 - Surveying for Construction	3 hours
CNET 2300 - Construction Graphics and Modeling	3 hours	MGMT 3850 - Foundations of Entrepreneurship	3 hours
CMGT 2304 - Statics and Strength of Materials	3 hours	Creative Arts core	3 hours
MGMT 3820 - Management Concepts	3 hours	Government/Political Science core	3 hours
American History core	3 hours	Language, Philosophy & Culture core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BLAW 3430 - Legal and Ethical Environment of Business	3 hours	BLAW 4770 - Real Estate Law and Contracts	3 hours
CNET 3150 - Construction Contract Documents	3 hours	CNET 3190 - Construction Scheduling	3 hours
CNET 3160 - Construction Cost Estimating	3 hours	CNET 3410 - Occupational Safety and Liability	3 hours
CMGT 3435 - Structural Analysis	3 hours	CMGT 3445 - Steel Structures	3 hours
Government/Political Science core	3 hours	CMGT 3465 - Soils and Foundations	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CMGT 3485 - Structural Design with Concrete, Timber and other Materials	3 hours	CNET 4180 - Problems in Project Management	3 hours
CNET 4170 - Construction Management	3 hours	CNET 4190 - Quality Management in Construction	3 hours
CMGT 4630 - Construction Management for Mechanical, Electrical and Plumbing (MEP) Systems	3 hours	CMGT 4795 - Senior Capstone	3 hours
Technical Elective	3 hours	CMGT 4920 - Cooperative Education Internship	1 hour
Component Area Option core	3 hours	Elective	3 hours
Total	15 hours	Total	13 hours

Mechanical and Energy Engineering, BS

The Bachelor of Science with a major in mechanical and energy engineering combines the fundamentals of mechanical engineering with a broad specialization in subjects related to energy, manufacturing and design.

The Bachelor of Science degree with a major in mechanical and energy engineering follows an interdisciplinary and innovative curriculum that combines the essentials of the classical discipline of mechanical engineering with the deeper knowledge of the dynamic field of energy studies. Thus, the BS degree combines the fundamentals of mechanical engineering with a broad specialization on subjects related to energy production, management and distribution. The goal of the mechanical and energy engineering department is to provide a curriculum and course of training that will prepare undergraduates not only for today's challenges, but also for future challenges in a fast-paced, global, and diverse society. As a consequence, this program emphasizes the fundamentals, modern methods, processes and technologies of engineering science. It also gives students the tools to learn by themselves and to pursue lifelong learning. Graduates of this program are well-prepared for industry careers and pursuit of advanced engineering degrees.

The mechanical and energy engineering curriculum is very broad. It is similar to a traditional mechanical engineering curriculum with the notable addition of several required energy-related courses and elective courses that emphasize energy applications and materials. In their first year, students in this program will take preparatory courses in mathematics and the basic sciences, including physics and chemistry. The required upper-division engineering courses are in the broad areas of energy-thermal-fluid science; mechanics and materials; dynamics, design and controls; and environmental impact of energy production and use. Technical elective courses range from alternative energy to nuclear power. The program also emphasizes studies in the humanities and social sciences, artistic ingenuity, professionalism, technical communication and engineering ethics.

The department also offers unique curriculum-integrated enrichment opportunities including undergraduate research, co-ops and study abroad exchanges with international partner schools. Minors that provide breadth of experience from other disciplines, including mathematics and hospitality management, can also be integrated seamlessly into the department's four-year bachelor's degree plan.

Degree requirements

Hours required and general/college requirements

A minimum of 127 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Engineering requirements.

Major requirements

Engineering fundamentals requirements, 10 hours

- ENGR 1304 - Engineering Graphics
- ENGR 2405 - Circuit Analysis

  or
- EENG 2610 - Circuit Analysis
- ENGR 3450 - Engineering Materials

Major requirements

A minimum of 50 credit hours, including:

- ENGR 2301 - Statics
- ENGR 2302 - Dynamics
- ENGR 2332 - Mechanics of Materials
- MEEN 1000 - Discover Mechanical and Energy Engineering
- MEEN 2110 - Engineering Data Analysis
- MEEN 2210 - Thermodynamics I
- MEEN 2240 - Programming for Mechanical Engineers
- MEEN 3100 - Manufacturing Processes
- MEEN 3110 - Thermodynamics II
- MEEN 3120 - Fluid Mechanics
- MEEN 3130 - Machine Elements
- MEEN 3210 - Heat Transfer
- MEEN 3230 - System Dynamics and Control
- MEEN 3240 - Mechanical and Energy Engineering Laboratory I
- MEEN 3242 - Mechanical and Energy Engineering Laboratory II
- MEEN 3250 - Numerical Methods for MEE Engineers
- MEEN 4150 - Mechanical and Energy Engineering Systems Design I
- MEEN 4250 - Capstone Design in Mechanical and Energy Engineering

Electives

12 credit hours from 3000 and 4000 level advanced courses with the following prefixes, provided prerequisites are met:

MEEN, MFET, MEET, CNET, and CMGT.

For specific information, see an academic advisor in the College of Engineering.

Other required courses

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1415 - General Chemistry for Engineering Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1435 - General Chemistry Laboratory for Engineering Majors
- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

  and
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1720 - Calculus II

  or
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism
- TECM 2700 - Technical Writing

Minor

None required.

Other requirements

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog. "

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1710 - Calculus I	4 hours	TECM 2700 - Technical Writing	3 hours
MEEN 1000 - Discover Mechanical and Energy Engineering	2 hours	MATH 1720 - Calculus II	3 hours
Chemistry Lecture & Laboratory selection	4 hours	PHYS 1710 - Mechanics	3 hours
Communication Core	3 hours	PHYS 1730 - Laboratory in Mechanics	1 hour
American History core	3 hours	ENGR 1304 - Engineering Graphics	3 hours
		American History core	3 hours
Total	16 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	MATH 3410 - Differential Equations I	3 hours
MATH 2730 - Multivariable Calculus	3 hours	MEEN 2110 - Engineering Data Analysis	3 hours
PHYS 2220 - Electricity and Magnetism	3 hours	MEEN 2210 - Thermodynamics I	3 hours
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	ENGR 2302 - Dynamics	3 hours
ENGR 2301 - Statics	3 hours	ENGR 2332 - Mechanics of Materials	3 hours
MEEN 2240 - Programming for Mechanical Engineers	3 hours	Circuit Analysis selection	3 hours
Total	16 hours	Total	18 hours

Year 3

Semester 1		Semester 2	
MEEN 3110 - Thermodynamics II	3 hours	MEEN 3130 - Machine Elements	3 hours
MEEN 3120 - Fluid Mechanics	3 hours	MEEN 3210 - Heat Transfer	3 hours
MEEN 3240 - Mechanical and Energy Engineering Laboratory I	2 hours	MEEN 3230 - System Dynamics and Control	3 hours
MEEN 3250 - Numerical Methods for MEE Engineers	3 hours	MEEN 3242 - Mechanical and Energy Engineering Laboratory II	1 hour
ENGR 3450 - Engineering Materials	4 hours	Language, Philosophy & Culture core	3 hours
		Creative Arts core	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1	
MEEN 3100 - Manufacturing Processes	3 hours
MEEN 4150 - Mechanical and Energy Engineering Systems Design I	3 hours
Elective selection	3 hours
Elective selection	3 hours
Government & Political Science core	3 hours
Total	15 hours

Semester 2	
MEEN 4250 - Capstone Design in Mechanical and Energy Engineering	3 hours
Energy Engineering Elective selection	3 hours
Elective selection	3 hours
Government & Political Science core	3 hours
Social & Behavioral Sciences core	3 hours
Total	15 hours

Mechanical Engineering Technology, BSET

A Bachelor of Science in Engineering Technology with a major in mechanical engineering technology is an applied degree for a career in engineering, mechanical systems, materials, and manufacturing. Earn a certificate in manufacturing engineering technology or in nuclear power technology and be even more competitive for a wider array of job opportunities with engineering firms.

The mechanical engineering technology major is built upon a strong foundation of science, mathematics and technical course work designed to meet the diverse needs of the mechanical engineer. Mechanical engineering technology concepts are used in all types of industry and are applied directly to product and tool design and to assist in the manufacturing process. Courses in computer-aided design, product design and development, manufacturing processes and materials, fluid and thermal sciences and quality assurance provide the student with a broad range of applications for the pursuit of a career in mechanical engineering technology.

Degree requirements

Hours required and general/college requirements

A minimum of 122 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Engineering requirements.

Major requirements, 73 hours

73 hours, chosen with the advice of an academic advisor within the department.

- CSCE 1030 - Computer Science I
- EENG 2610 - Circuit Analysis
- EENG 2611 - Circuit Analysis Lab
- ENGR 1304 - Engineering Graphics
- ENGR 2301 - Statics
- ENGR 2302 - Dynamics
- ENGR 2332 - Mechanics of Materials
- ENGR 3450 - Engineering Materials
- MEET 3550 - Geometrical Dimensioning and Tolerancing
- MEET 3650 - Design of Mechanical Components
- MEET 3940 - Fluid Mechanics Applications
- MEET 3980 - Digital Control of Industrial Processes
- MEET 3990 - Applied Thermodynamics
- MEET 4050 - Mechanical Design
- MEET 4350 - Heat Transfer Applications
- MEET 4360 - Experimental Thermal Sciences
- MEET 4780 - Senior Design I
- MEET 4790 - Senior Design II
- MFET 3110 - Machining Principles and Processes
  or
- MEEN 3100 - Manufacturing Processes
- MFET 4190 - Quality Assurance
- MFET 4200 - Engineering Cost Analysis
- MFET 4210 - CAD/CAM System Operations
- 3 hours of technical electives
- 6 hours of advanced technical electives

Other course requirements

Other courses needed are listed below:

- CHEM 1410 - General Chemistry I for Science Majors * and
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- ENGR 1030 - Technological Systems
- MATH 1710 - Calculus I
  or
- MATH 1810 - Calculus for Science and Engineering I
  and
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1720 - Calculus II
  or
- MATH 1830 - Calculus for Science and Engineering III
- PHYS 1710 - Mechanics * and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism * and
- PHYS 2240 - Laboratory in Electricity and Magnetism
- TECM 2700 - Technical Writing (required instead of ENGL 1320)

Notes

*may be used to satisfy a portion of the University Core Curriculum

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Engineering.

Other requirements

Department policies

Policy on Academic Performance, Progression, and Dismissal in the College of Engineering

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of C is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, elective and specialization courses.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academic Policies and Procedures section of this catalog.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1410 - General Chemistry I for Science Majors	3 hours	MATH 1720 - Calculus II	3 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	PHYS 1710 - Mechanics	3 hours
ENGR 1030 - Technological Systems	3 hours	PHYS 1730 - Laboratory in Mechanics	1 hour
ENGR 1304 - Engineering Graphics	3 hours	TECM 2700 - Technical Writing	3 hours
MATH 1710 - Calculus I	4 hours	American History core	3 hours
Communication core	3 hours	Government/Political Science core	3 hours
Total	17 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
CSCE 1030 - Computer Science I	3 hours	EENG 2610 - Circuit Analysis	3 hours
ENGR 2301 - Statics	3 hours	EENG 2611 - Circuit Analysis Lab	1 hour
PHYS 2220 - Electricity and Magnetism	3 hours	ENGR 2302 - Dynamics	3 hours
PHYS 2240 - Laboratory in Electricity and Magnetism	1 hour	ENGR 2332 - Mechanics of Materials	3 hours
American History core	3 hours	MEET Technical Elective	3 hours
Total	13 hours	Total	13 hours

Year 3

Semester 1		Semester 2	
ENGR 3450 - Engineering Materials	4 hours	MEET 3550 - Geometrical Dimensioning and Tolerancing	3 hours
MEET 3940 - Fluid Mechanics Applications	3 hours	MEET 3650 - Design of Mechanical Components	3 hours
MEET 3990 - Applied Thermodynamics	3 hours	MEET 3980 - Digital Control of Industrial Processes	4 hours
MFET 3110 - Machining Principles and Processes	3 hours	MFET 4190 - Quality Assurance	3 hours
Social and Behavioral Sciences core	3 hours	MFET 4210 - CAD/CAM System Operations	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MEET 4050 - Mechanical Design	3 hours	MEET 4360 - Experimental Thermal Sciences	3 hours
MEET 4350 - Heat Transfer Applications	3 hours	MEET 4790 - Senior Design II	3 hours
MEET 4780 - Senior Design I	1 hour	Government/Political Science core	3 hours
MFET 4200 - Engineering Cost Analysis	3 hours	Language, Philosophy and Culture core	3 hours
Creative Arts core	3 hours	MEET Advanced Technical Elective	3 hours
MEET Advanced Technical Elective	3 hours		
Total	16 hours	Total	15 hours

Construction Engineering Technology, BSET with grad track option leading to Engineering Management, MS

In this grad track option, the Construction Engineering Technology, BSET student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Engineering Management, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Application requirements

- Construction Engineering Technology, BSET major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.5 at the time of application submission, with an average grade of 3.5 or higher in Construction Engineering Technology, BSET core courses.
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

Policies related to completion of programs

- The students accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which they first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.
- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Engineering Management, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Engineering Management, MS core courses that can be used as electives towards their bachelor's degree.

- EMGT 5020-Design of Experiments
- EMGT 5040-Product Reliability and Quality
- EMGT 5050-Project Management for Engineers
- EMGT 5060-Technology Innovation
- EMGT 5070-Management in Human and Societal Development

Additionally, grad-track students can take three (3) credit hours of graduate courses that can be used as electives towards both their bachelor's degree and the Engineering Management, MS degree.

All remaining courses for the Construction Engineering Technology, BSET program must be completed.

Construction Management, BS with grad track option leading to Engineering Management, MS

In this grad track option, the Construction Management, BS student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Engineering Management, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Admission requirements and program policies

Admission requirements and program policies

Application requirements

- Construction Management, BS major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.5 at the time of application submission, with an average grade of 3.5 or higher in Construction Management, BS core courses.
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

Policies related to completion of programs

- The students accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which they first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.

- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Engineering Management, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Engineering Management, MS core courses that can be used as electives towards their bachelor's degree.

- EMGT 5020-Design of Experiments
- EMGT 5040-Product Reliability and Quality
- EMGT 5050-Project Management for Engineers
- EMGT 5060-Technology Innovation
- EMGT 5070-Management in Human and Societal Development

Additionally, grad-track students can take three (3) credit hours of graduate courses that can be used as elective towards both their bachelor's degree and the Engineering Management, MS degree.

All remaining courses for the Construction Management, BS program must be completed.

Mechanical and Energy Engineering, BS with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Mechanical and Energy Engineering, BS program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Mechanical Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. The following courses may apply to the grad track, with approval of the undergraduate and graduate coordinators from the respective programs.

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling)
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies

- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5220 - Building Information Modeling
- EMGT 5230 - Risk Management in Construction
- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 - Design of Experiments
- MEEN 5030 – Product Design and Development
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5180 - Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection of Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Applications of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Manufacturing Concepts for Mechanical Engineering
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Mechanical and Energy Engineering, BS must also be completed. Other graduate courses may be applied to the Mechanical and Energy Engineering, BS and Biomedical Engineering, MS with consent of the departments.

Mechanical and Energy Engineering, BS with grad track option leading to Electrical Engineering, MS

The Department of Electrical Engineering offers a grad track option for existing UNT undergraduate students enrolled in the Mechanical and Energy Engineering, BS program.

In this grad track option, the student can take a maximum of three (3) credit hours of graduate courses while completing the BS degree. After earning the BS degree, these credit hours can be counted toward the MS degree. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators of their respective programs.

Admission requirements

To be eligible to apply for grad track, students must have a cumulative GPA of 3.5 or higher at the time of application

To apply, students should submit the following to the grad track coordinator of the Department of Electrical Engineering, MS before the first semester of their senior year:

- A completed grad track application form, and
- An up-to-date official transcript

The student's application will be reviewed by the undergraduate coordinator in Mechanical Engineering and the graduate coordinator in Electrical Engineering.

After a student is admitted to the grad track program, the student must apply to the Toulouse Graduate School during their senior year for admission to the Electrical Engineering, MS, which should follow the same application procedure, application deadlines, and admission requirements as the regular graduate applications for admission to the Electrical Engineering, MS.

Program policies

After being accepted into the grad track option, the student then can take graduate courses in their senior year as Mechanical and Energy Engineering, BS electives to meet the bachelor's degree requirements. In order for courses to be counted toward the MS degree, the student must meet the minimum grade requirements of the courses in the MS program. After being accepted into the grad track option, the student must complete the bachelor's degree within one year of the first graduate level course they take.

Students admitted to the program will be admitted into the MS program on a conditional basis. Once the student has satisfied all requirements for the bachelor's degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program.

The student must enroll in graduate school in the long semester within one year after receiving his or her bachelor's degree and should complete the remaining graduate courses in the following year(s) to receive the MS degree. If the student does not enroll in graduate school in the long semester within one year after finishing the BS degree, those graduate credit hours will not be counted toward the MS degree, even if the student comes back to graduate school in the future.

Program requirements

The student is allowed to take one of the graduate courses listed below in the senior year of the program for a total of 3 hours (may be changed only if approved by both the Mechanical Engineering undergraduate and Electrical Engineering graduate coordinators):

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5215 – Machine Learning
- CSCE 5290 – Natural Language Processing
- CSCE 5430 – Software Engineering
- CSCE 5640 – Operating System Design
- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- MEEN 5440 – Finite Element Analysis
- MEEN 5610 – Sensors and Actuators
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Mechanical and Energy Engineering, BS.

After receiving his or her bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in electrical engineering *(see Graduate Catalog)*.

Mechanical and Energy Engineering, BS with grad track option leading to Engineering Management, MS

In this grad track option, the Mechanical and Energy Engineering, BS student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Engineering Management, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Application requirements

- Mechanical and Energy Engineering, BS major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.5 at the time of application submission, with an average grade of 3.5 or higher in Mechanical and Energy Engineering, BS core courses.
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

Policies related to completion of programs

- The students accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which they first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.
- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Engineering Management, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Engineering Management, MS core courses that can be used as electives towards their bachelor's degree.

- EMGT 5020-Design of Experiments
- EMGT 5040-Product Reliability and Quality
- EMGT 5050-Project Management for Engineers
- EMGT 5060-Technology Innovation
- EMGT 5070-Management in Human and Societal Development

Additionally, grad-track students can take three (3) credit hours of graduate courses that can be used as elective towards both their bachelor's degree and the Engineering Management, MS degree.

All remaining courses for the Mechanical and Energy Engineering, BS program must be completed.

Mechanical and Energy Engineering, BS with grad track option leading to Materials Science and Engineering, MS

Admission requirements

Students applying to the grad track option should be majors in the Mechanical and Energy Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application

- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Program requirements

Students in the grad track option may choose 9 hours from the following graduate-level courses to replace electives in the BS degree with the approval of the undergraduate coordinator and advisor in the Department of Mechanical Engineering and the graduate coordinator in the Department of Materials Science and Engineering.

- BMEN 5324 – Applications of Biomedical MEMS
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5380 – Data Mining
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5440 – Finite Element Analysis
- MEEN 5520 – Advanced Manufacturing
- MEEN 5610 – Sensors and Actuators
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallography
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer Physics and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electronic and Ion Microscopy
- MTSE 5710 – Computational Materials Science

If the student wishes to take other graduate courses to satisfy the grad track option requirements, he or she will need to obtain approval from both the undergraduate advisor in Mechanical Engineering and graduate advisor in Materials Science and Engineering. Students should earn a B or higher in these courses in order to be counted toward the MS degree.

All remaining courses for the Mechanical and Energy Engineering, BS must be completed according to the catalog.

Mechanical and Energy Engineering, BS with grad track option leading to Mechanical and Energy Engineering, MS

In this grad track option, the Mechanical and Energy Engineering, BS student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Mechanical and Energy Engineering, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Application requirements

- Mechanical and Energy Engineering, BS major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.3 at the time of application submission, with an average grade of 3.5 or higher for MEEN core courses (MEEN 2210, MEEN 3110, MEEN 3120, MEEN 3250).
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives or energy electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

Policies related to completion of programs

- The students accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which they first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.

- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Mechanical and Energy Engineering, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Mechanical and Energy Engineering, MS core courses that can be used as electives towards their bachelor's degree.

- MEEN 5000 - Energy: The Fundamentals
- MEEN 5110 - Renewable Energy
- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5150 - Thermal Energy Storage Systems and Applications
- MEEN 5300 - Advanced Thermodynamics
- MEEN 5311 - Convective Heat Transfer II
- MEEN 5340 - Advanced Fluid Mechanics
- MEEN 5410 - Advanced Solid Mechanics
- MEEN 5440 - Finite Element Analysis
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5600 - Feedback Control of Dynamic Systems
- MEEN 5610 - Sensors and Actuators
- MEEN 5740 - Robotics and Automation

Additionally, grad-track students can take three (3) credit hours of graduate courses that can be used as elective toward both their bachelor's degree and the Mechanical and Energy Engineering, MS degree.

All remaining courses for Mechanical and Energy Engineering, BS must be completed.

Mechanical and Energy Engineering, BS with grad track option leading to Mechanical and Energy Engineering, PhD

The following is the step-by-step process:

1. Students apply for the grad track with the BS to PhD grad track option in the junior year (having completed at least 75 credit hours with a GPA of 3.5 or higher).
2. After the application is approved and have completed at least 90 credit hours, the student can start taking the graduate courses that are approved for grad track with the BS to PhD grad track option as MEE electives for the BS degree requirement. For the graduate courses to be counted for the PhD degree later, the student must meet the minimum grade requirements of the courses in the PhD program.
3. The student applies to the Toulouse Graduate School within the first semester of the senior year. The student needs to submit an online application and all required documents for admission to the PhD in MEE program.
4. The student must enroll in graduate school in the long semester after finishing his/her BS degree and should take the remaining graduate courses in the following year(s) to complete his/her PhD degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree, those graduate course credit hours will no longer be counted for the PhD degree, even if the student comes back for graduate school in the future.
5. Students in the BS-to-MS grad track option can apply to transfer to the BS-to-PhD grad track option any time with departmental approval.
6. TGS will be consulted for cases when students enrolled in the BS program with the BS-to-MS grad track option are transferred to the program with the BS-to-PhD grad track option.
7. Once admitted to the PhD program, the student will have higher priority for funding (research and teaching assistantships) to support PhD study.

Program requirements

Students may choose up to 12 hours from the following list of courses.

1. Materials and Manufacturing (Material Reliability and Manufacturing)

Required core courses

- MEEN 5410 - Advanced Solid Mechanics
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5800 - Topics in Mechanical and Energy Engineering
- MTSE 5100 - Fundamental Concepts of Materials Science or MEEN 5440 Finite Element Analysis

Electives

- MEEN 5152 - Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5440 - Finite Element Analysis
- MEEN 6050- Continuum Mechanics
- MTSE 5020 - Mechanical Properties of Materials
- MTSE 5400 - Advanced Polymer Physics and Chemistry
- MTSE 5550 - Materials and Mechanics for MEMS Devices
- MTSE 5710 - Computational Materials Science
- MTSE 6110 - Applied Fracture Mechanics

2. Mechanical Systems and Design

Required core courses

- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5410 - Advanced Solid Mechanics
- MEEN 5600 - Feedback Control of Dynamic Systems
- MEEN 5640 - Applied Engineering Vibration* (Cross listed as MFET 5140)

Electives

- MEEN 5152 - Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5440 - Finite Element Analysis
- MEEN 5610 - Sensors and Actuators
- MEEN 5800 - Topics in Mechanical and Energy Engineering: Experimental Design
- MEEN 5800 - Topics in Mechanical and Energy Engineering: Geothermal Heat Pumps
- MEEN 6200 - Theory of Elasticity
- MTSE 6110 - Applied Fracture Mechanics

3. Modeling and Simulation

Required core courses

- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5220 - Computational Fluid Dynamics and Heat Transfer*

- MEEN 5440 - Finite Element Analysis
- MEEN 6000 - Advanced Computational Fluid Dynamics (or MTSE 5710 or CSCE 5230)

Electives

- CSCE 5160 - Parallel Processing and Algorithms
- CSCE 5230 - Methods of Numerical Computation
- CSCE 5420 - Software Development
- CSCE 5810 - Bioinformatics Algorithms
- MEEN 5311 - Convection Heat Transfer II*
- MEEN 5340 - Advanced Fluid Mechanics*
- MEEN 5410 - Advance Solid Mechanics
- MEEN 5315 - Nanoscale Energy Transport
- MEEN 6050 - Continuum Mechanics
- MTSE 5710 - Computational Materials Science**

Note: Every student under the Modeling and Simulation track will pick from electives a group of courses either in the area of mechanics (**) or in the area of thermal-fluid sciences (*), or both.

4. Thermal-Fluid Systems

Required core courses

- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5300 - Advanced Thermodynamics
- MEEN 5311 - Convective Heat Transfer II
- MEEN 5340 - Advanced Fluid Mechanics

Electives

- MEEN 5000 - Energy: The Fundamentals
- MEEN 5110 - Renewable Energy
- MEEN 5200 - Principles of HVAC
- MEEN 5220 - Computational Fluid Dynamics and Heat Transfer
- MEEN 5310 - Conduction and Radiation Heat Transfer
- MEEN 5315 - Nanoscale Energy Transport
- MEEN 5330 - Combustion Science and Engineering
- MEEN 5800 - Topics in Mechanical and Energy Engineering: Geothermal Heat Pumps

5. Energy

Required core courses

- MEEN 5000 - Energy: The Fundamentals
- MEEN 5110 - Renewable Energy
- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5800 - Energy Harvesting

Electives

- BIOL 6341 - Advanced Environmental Impact Assessment
- EENG 5940 - Advanced Topics in Electrical Engineering
- MEEN 5112 - Nuclear Energy
- MEEN 5150 - Thermal Energy Storage Systems and Applications
- MEEN 5200 - Principles of HVAC
- MEEN 5210 - Solar Energy
- MEEN 5240 - Energy: A World Perspective
- MEEN 5310 - Conduction and Radiation Heat Transfer
- MEEN 5330 - Combustion Science and Engineering
- MEEN 5332 - Air Pollution Control Engineering
- MEEN 5800 - Topics in Mechanical and Energy Engineering: Geothermal Heat Pumps

All remaining courses for the Mechanical and Energy Engineering, BS must be completed.

Mechanical and Energy Engineering, BS with grad track option leading to Semiconductor Manufacturing Engineering, MS

The Semiconductor Manufacturing Engineering, MS program is an interdisciplinary program that prepares students for the vital and growing semiconductor industry. This cross-departmental grad track pathway will allow students in the Mechanical and Energy Engineering, BS program to combine the knowledge they gained through their BS degree with advanced education in semiconductor manufacturing.
This grad track pathway provides the opportunity for any qualified Mechanical and Energy Engineering, BS (MEEN-BS) student to complete a Master's in Semiconductor Manufacturing Engineering (SCME-MS). Students can transfer up to 9 approved credits from their MEEN-BS degree to the SCME-MS program.

Admission requirements

Students applying to the grad track option should be majors in the Mechanical and Energy Engineering, BS program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours. Other requirements include:

- A cumulative GPA of 3.5 or higher is required at the time of application
- A personal statement, curriculum vitae and two letters of recommendation from materials science and engineering faculty members

The student's application will be reviewed by both undergraduate and graduate advisors in the respective BS and MS programs. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program Requirements

The student is allowed to take three of the graduate courses listed below in the senior year of the program for a total of 9 hours. These courses may be changed only if approved by both the Mechanical and Energy Engineering undergraduate and Semiconductor Manufacturing Engineering graduate coordinators.

In the senior year, in addition to the approved graduate courses, the student is required to take all remaining courses required for the Mechanical and Energy Engineering, BS.

After receiving their bachelor's degree and being enrolled in the graduate program, the student is required to take all remaining courses required for the MS degree with a major in semiconductor manufacturing engineering *(see Graduate Catalog)*.

- MEEN 5020 Design of Experiments
- MEEN 5130 Product Reliability and Quality
- MEEN 5315 Nanoscale Energy Transport

Program Policies

After completing at least 90 credit hours and after authorization from undergraduate and graduate advisors, the student may begin taking graduate courses as electives for the BS requirements. Students should earn a B or higher in these graduate courses to be counted toward the MS degree.

Students admitted to the grad track option will be admitted to the MS on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a GPA of 3.0 or higher, they will be fully admitted to the MS program with all the rights and privileges of a graduate student.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

The student will be awarded the BS degree immediately upon successful completion of the requirements for the undergraduate degree.

Mechanical Engineering Technology, BSET with grad track option leading to Biomedical Engineering, MS

Admission requirements

1. Student should be a major in the UNT Mechanical Engineering Technology, BSET program.
2. Students can apply for the grad track option his/her junior year (following completion of at least 75 credit hours; a benchmark is if the student is ready for Senior Design in the following fall semester).
3. Minimum of 3.5 or higher cumulative GPA required at the time of application submission, with a minimum GPA of 3.5.
4. The student should provide two recommendation letters from faculty members with their application.
5. Application will be reviewed by both the undergraduate advisor in Mechanical Engineering and graduate advisor in Biomedical Engineering.
6. Once approved by the respective advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After being admitted to the grad track program and completion of at least 90 credit hours, the student can start taking the graduate courses as technical electives for the BS degree requirement. For the graduate courses to be counted for the MS degree, the student should get a B or above for the courses.
2. The student in the grad track program will be advised and monitored by both the undergraduate coordinator (prior to completion of the BS) and the graduate advisor (after completion of the BS).
3. The student should choose a major research advisor in the semester that the student begins taking graduate courses.
4. There will be an annual review of each student's academic progress in meeting both bachelor's and master's degree requirements. If the student fails to meet degree requirements, the student will be placed in a probationary period for one semester. If the student continues to not meet the degree requirements in the probationary period, the student will be expelled from the grad track program (they will still be in the general biomedical engineering BS program if all general biomedical engineering BS degree requirements are met).
5. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they begin taking graduate courses or enrollment in graduate level course work will be suspended.
6. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA, they will be fully admitted to the MS program.
7. The student must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following years to complete his/her biomedical engineering master's degree. If the student did not enroll in graduate school in the long semester after finishing his/her BS degree those graduate course credit hours will not be counted toward the MS degree, even if the student comes back for graduate school in the future.

Program requirements

The student is required to take three of the courses listed below in the fourth year of their bachelor's degree program. The following courses may apply to the grad track, with approval from the undergraduate and graduate coordinators from the respective programs.

- BMEN 5007 - Research Methods in Biomedical Engineering (BMEN 4007 - Biomedical Experimental Design and Data Analysis)
- BMEN 5310 - Clinical Instrumentation (BMEN 4311 - Biomedical Instrumentation II)
- BMEN 5313 - Bioengineering of Cellular Systems (BMEN 4313 - Cellular Engineering)
- BMEN 5314 - Advanced Tissue Engineering and Regenerative Medicine (BMEN 4314 - Tissue Engineering)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310 - Biomedical Modeling
- BMEN 5319 - Cardiovascular Fluid Dynamics (BMEN 4319 - Cardiovascular Flows)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321 - Biophotonics)
- BMEN 5325 - Biomedical Nanotechnology Compatibility (BMEN 4325 - Biomedical Nanotechnology)
- BMEN 5326 - Biomolecular Engineering (BMEN 4326 - Principles of Biomolecular Engineering)
- CSCE 5050 – Applications of Cryptography
- CSCE 5200 – Information Retrieval and Web Search
- CSCE 5210 – Fundamentals of Artificial Intelligence
- CSCE 5215 – Machine Learning
- CSCE 5220 – Computer Graphics
- CSCE 5225 – Digital Image Processing
- CSCE 5290 – Natural Language Processing
- CSCE 5350 – Fundamentals of Database Systems
- CSCE 5380 – Data Mining
- CSCE 5400 – Formal Languages, Automata, and Computability
- CSCE 5430 – Software Engineering
- CSCE 5450 – Programming Languages
- CSCE 5460 – Software Testing and Empirical Methodologies
- CSCE 5510 – Wireless Communications
- CSCE 5520 – Wireless Networks and Protocols
- CSCE 5550 – Introduction to Computer Security
- CSCE 5555 – Computer Forensics
- CSCE 5560 – Secure Electronic Commerce
- CSCE 5585 – Network Security
- CSCE 5610 – Computer System Architecture
- CSCE 5620 – Real-Time Operating Systems
- CSCE 5650 – Compiler Design
- CSCE 5655 – Principles of Compiler Optimization
- CSCE 5730 – Digital CMOS VLSI Design
- CSCE 5810 – Bioinformatics Algorithms
- CSCE 5820 – Advances in Bioinformatics
- EENG 5310 – Control Systems Design
- EENG 5320 – Systems Modeling and Simulation
- EENG 5520 – Design and Testing of Digital Systems
- EENG 5530 – Analog Integrated Circuit Design
- EENG 5610 – Digital Signal Processing
- EENG 5810 – Digital Communications
- EMGT 5200 - Advanced Construction Scheduling
- EMGT 5220 - Building Information Modeling
- EMGT 5230 - Risk Management in Construction

- MEEN 5000 – Energy: The Fundamentals
- MEEN 5020 - Design of Experiments
- MEEN 5030 - Product Design and Development
- MEEN 5110 – Renewable Energy
- MEEN 5112 – Nuclear Energy
- MEEN 5140 – Advanced Mathematical Methods for Engineers
- MEEN 5150 – Thermal Energy Storage System and Applications
- MEEN 5152 – Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 5180 - Creep and Fatigue in Engineering Design and Systems Performance
- MEEN 5220 – Computational Fluid Dynamics and Heat Transfer
- MEEN 5300 – Advanced Thermodynamics
- MEEN 5310 – Conduction and Radiation Heat Transfer
- MEEN 5311 – Convection of Heat Transfer II
- MEEN 5315 – Nanoscale Energy Transport
- MEN 5330 – Combustion Science and Engineering
- MEEN 5332 – Air Pollution Control Engineering
- MEEN 5340 – Advanced Fluid Mechanics
- MEEN 5410 – Advanced Solid Mechanics
- MEEN 5440 – Finite Element Analysis
- MEEN 5450 - Application of Electron Microscopy and Failure Analysis
- MEEN 5510 – Manufacturing Process for Biocomposites
- MEEN 5520 – Advanced Manufacturing
- MEEN 5600 – Feedback Control of Dynamical Systems
- MEEN 5610 – Sensors and Actuators
- MEEN 5640 – Applied Engineering Vibrations
- MEEN 5800 – Topics in Mechanical and Energy Engineering
- MTSE 5000 – Thermodynamics of Materials
- MTSE 5010 – Bonding, Structure, and Crystallograpy
- MTSE 5020 – Mechanical Properties of Materials
- MTSE 5070 – Tribology of Materials
- MTSE 5100 – Fundamental Concepts of Materials Science
- MTSE 5200 – Advanced Concepts of Metallurgical Science
- MTSE 5210 – Corrosion and Oxidation of Materials
- MTSE 5300 – Science and Technology of Modern Ceramics
- MTSE 5400 – Advanced Polymer, Physics, and Chemistry
- MTSE 5500 – Electronic, Optical, and Magnetic Materials
- MTSE 5520 – Physical and Chemical Based Integrated Circuit Fabrication
- MTSE 5550 – Materials and Mechanics for MEMS Devices
- MTSE 5560 – Compound Semiconductor Materials and Devices
- MTSE 5600 – Materials Characterization
- MTSE 5610 – Fundamentals of Surface Thin Film Analysis
- MTSE 5620 – Scanning Electron and Ion Microscopy
- MTSE 5710 – Computational Materials Science

All remaining courses required for the Mechanical Engineering Technology, BSET must also be completed. Other graduate courses may be applied to the Mechanical Engineering Technology, BSET and Biomedical Engineering, MS with consent of the departments.

Mechanical Engineering Technology, BSET with grad track option leading to Engineering Management, MS

In this grad track option, the Mechanical Engineering Technology, BSET student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Engineering Management, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Application requirements

- Mechanical Engineering Technology, BSET major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.5 at the time of application submission, with an average grade of 3.5 or higher in Mechanical Engineering Technology, BSET core courses.
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

Policies related to completion of programs

- The students accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which they first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.
- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Engineering Management, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Engineering Management, MS core courses that can be used as electives towards their bachelor's degree.

- EMGT 5020-Design of Experiments
- EMGT 5040-Product Reliability and Quality
- EMGT 5050-Project Management for Engineers
- EMGT 5060-Technology Innovation
- EMGT 5070-Management in Human and Societal Development

Additionally, grad-track students can take three (3) credit hours of graduate courses that can be used as elective towards both their bachelor's degree and the Engineering Management, MS degree.

All remaining courses for the Mechanical Engineering Technology, BSET program must be completed.

Mechanical Engineering Technology, BSET with grad track option leading to Mechanical and Energy Engineering, MS

In this grad track option, the Mechanical Engineering Technology, BSET student can take a maximum of nine (9) credit hours of graduate courses while completing the bachelor's degree. After earning the bachelor's degree, these credit hours can be counted toward the Mechanical and Energy Engineering, MS. Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators.

Admission requirements and program policies

Application requirements and procedures

- Mechanical Engineering Technology, BSET major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the Senior Design course the following fall semester).
- Minimum cumulative GPA of 3.5 at the time of application submission, with an average grade of 3.5 or higher in Mechanical Engineering Technology, BSET core courses.
- Two letters of recommendation from ME faculty members.
- The student's application will be reviewed by both the ME undergraduate advisor and the ME graduate advisor.
- Once the application is approved by the ME advisors, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Application procedures and program policies

The student must earn a grade of B or higher in each graduate course for the course to be counted toward the master's degree.

- After being admitted to the grad track program and having completed at least 90 credit hours, the student can start taking the specified graduate courses in place of the technical electives in the bachelor's program.
- The student admitted to the grad track option will be admitted into the master's program on a conditional basis.
- Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 GPA or higher, they will be fully admitted into the master's program.

Program policies

- The student accepted to the grad track option should complete all requirements for the bachelor's degree and graduate within 12 months from the beginning of the semester in which first enrolled in a graduate course. If requirements are not completed within 12 months, enrollment in graduate-level courses will be suspended.
- The student must enroll in the graduate program the long semester after finishing the bachelor's degree and should take the remaining graduate-level courses in the following year(s) to complete the Mechanical and Energy Engineering, MS. If the student does not enroll in the graduate program the long semester immediately following completion of the bachelor's degree, the graduate-level courses applied to the undergraduate degree may not be counted toward the Master of Science, even if the student returns to UNT for graduate school in the future.

Program requirements

Graduate courses that may be applied to the bachelor's degree should be selected with the approval of the ME undergraduate coordinator and graduate advisor.

Grad track students can take six (6) credit hours of graduate courses from the following Mechanical and Energy Engineering, MS core courses that can be used as electives toward their bachelor's degree.

- MEEN 5140 - Advanced Mathematical Methods for Engineers
- MEEN 5410 - Advanced Solid Mechanics
- MEEN 5520 - Manufacturing Concepts for Mechanical Engineers
- MEEN 5440 - Finite Element Analysis
- MEEN 5600 - Feedback Control of Dynamic Systems
- MEEN 5740 - Robotics and Automation
- MEEN 5610 - Sensors and Actuators
- MEEN 5300 - Advanced Thermodynamics
- MEEN 5311 - Convective Heat Transfer II
- MEEN 5340 - Advanced Fluid Mechanics
- MEEN 5000 - Energy: The Fundamentals
- MEEN 5110 - Renewable Energy
- MEEN 5150 - Thermal Energy Storage Systems and Applications

Additionally, grad-track students can take three (3) credit hours of graduate course that can be used as elective toward both their bachelor's degree and the Mechanical and Energy Engineering, MS degree.

All remaining courses for the Mechanical Engineering Technology, BSET program must be completed.

Minors

Construction Management minor

Students are required to take 18 semester hours (6 advanced) from the approved course list.

Required courses, 6 hours

- CNET 1160 - Construction Methods and Materials
- CNET 2180 - Building Construction Techniques

Plus 12 hours from:

- CNET 2300 - Construction Graphics and Modeling
- CNET 3150 - Construction Contract Documents
- CNET 3160 - Construction Cost Estimating
- CNET 3190 - Construction Scheduling
- CNET 3410 - Occupational Safety and Liability
- CNET 4170 - Construction Management
- CNET 4180 - Problems in Project Management
- CNET 4190 - Quality Management in Construction
- CMGT 4630 - Construction Management for Mechanical, Electrical and Plumbing (MEP) Systems

Mechanical and Energy Engineering minor

The minor in mechanical and energy engineering requires a total of 18 semester credit hours.

Required courses, 9 hours

- MEEN 2210 - Thermodynamics I
- MEEN 2302 - Mechanics II

  or
- ENGR 2302 - Dynamics
- MEEN 2332 - Mechanics III

  or
- ENGR 2332 - Mechanics of Materials

Additional courses, 9 hours

Chosen from the following:

- MEEN 3100 - Manufacturing Processes
- MEEN 3110 - Thermodynamics II
- MEEN 3120 - Fluid Mechanics
- MEEN 3130 - Machine Elements
- MEEN 3210 - Heat Transfer
- MEEN 3230 - System Dynamics and Control
- MEEN 3240 - Mechanical and Energy Engineering Laboratory I
- MEEN 3242 - Mechanical and Energy Engineering Laboratory II
- MEEN 4110 - Renewable Energy
- MEEN 4140 - Finite Element Analysis
- Or other 3000- or 4000-level MEEN courses with the approval of MEEN undergraduate advisor

Certificates

Energy Assessment of Buildings professional certificate

This professional certificate program provides both traditional students and practicing professionals with a learning experience that enhances their capabilities in building energy assessment. The program focuses on both basic engineering science and practical applications of building energy assessment methods. The program will help students gain knowledge required towards certification for a building energy modeling professional by ASHRAE, AEE or other professional organizations. Interested applicants must contact the department chairperson or the coordinator prior to registering for the program.

The certificate will be awarded to students who successfully demonstrate competency in the following courses (some of which may require prerequisites or permission of the program coordinator):

Required courses, 15 hours

- MEEN 3220 - Thermal-Fluid Science for Buildings
- MEEN 4320 - Building Energy Systems
- MEEN 4335 - Computational Simulation of Building Energy Systems
- MEEN 4340 - Energy Efficiencies and Green Building Design for Commercial Buildings
- MEEN 4350 - Energy Efficiencies and Green Building for Residential Buildings

Undergraduate Academic Certificates

Electromechanical Systems and Mechatronics certificate

Electromechanical systems and mechatronics covers from basic circuits topic to controls.

Students who receive this certificate will have fundamental knowledge in controlling electromechanical systems. The certificate will be administered by the College of Engineering and is open to all majors on campus.

Requirements, 12 hours

Students will need to complete 4 of the following courses to receive the certificate:

- EENG 2620 - Signals and Systems
- EENG 3510 - Electronics I (Devices and Materials)
- EENG 3520 - Electronics II
- ENGR 2302 - Dynamics
- MEEN 3130 - Machine Elements
- MEEN 3230 - System Dynamics and Control
- EENG 4310 - Control Systems Design
- MEEN 4760 - Introduction to Robotics and Automation

Manufacturing Engineering Technologies certificate

Certificate requirements, 15 hours

Required courses

- MFET 3110 - Machining Principles and Processes
- MFET 4190 - Quality Assurance
- MFET 4200 - Engineering Cost Analysis
- MFET 4210 - CAD/CAM System Operations

Electives

Select one elective out of the following four courses:

- MEET 3550 - Geometrical Dimensioning and Tolerancing
- MEET 3750 - Digital Manufacturing
- MEET 4100 - Fundamentals of Product and Process Design Development
- MFET 4220 - CNC Programming and Operation

College of Information

Main Office
Discovery Park, Room E290
3940 N. Elm St.
Denton, TX 76207-7102

Mailing address:
1155 Union Circle #311068
Denton, TX 76203-5017
940-369-8164
Fax: 940-369-8525
Web site: ci.unt.edu

Kinshuk, Dean
Sharad Sharma, Associate Dean of Research and Development
Yunfei Du, Associate Dean of Academics

Faculty

The College of Information situates itself at the intersection of people, technology and information. Its faculty, staff and students invest in innovative research, collaborative partnerships and student-centered education to serve a global information society. The college is dedicated to serving state, regional, national and global communities by preparing information leaders and innovators; forging the creation of transformative and translational knowledge; and sharing knowledge that addresses information challenges and problems. The college's goals are to

- provide exemplary learning opportunities and instruction facilitated through varied formats, technology-rich environments and an accomplished faculty who embrace diversity in all college endeavors;
- contribute leading-edge research, scholarship and creative pursuits for a global informational society; and
- nurture the professional endeavors of faculty and staff, the university and the general public through outstanding leadership, consulting, community engagement and continuing education.

University Core Requirements and degree requirements

The University of North Texas core curriculum is listed in the "University Core Curriculum Requirements" in the Degree Requirements and Graduation section of this catalog. Each program within the college requires specific courses to satisfy particular degree requirements. Students who have questions regarding degree requirements and course requirements should contact the College advising office at ci-advising@unt.edu, or consult a degree program advisor in the Department of Information Science or the Department of Learning Technologies.

Programs of study

Programs of study are listed under each department.

Department of Data Analytics and Statistics

Main Office
General Academic Building (GAB), Room 102

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Data Analytics and Statistics
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DAST Advising: 940-565-3112 or 940-360-5179
E-mail: analytics@unt.edu
Web site: dataanalytics.unt.edu

Sarah Quintanar, Interim Chair

Faculty

Minors

Statistics minor

A minor in statistics requires 22 hours.

Requirements

Mathematics and Statistics, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 2730 - Multivariable Calculus
- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics

*Students have the option to take Math MATH 1810 / 1820 / 1830 or MATH 1710 / 1820/ 1830 in place of MATH 1710/ 1720.

- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

Application of statistical methods to another discipline, 3 hours

In addition, one additional course concerning the application of statistical methods to another discipline must be taken from the following.

If this course may ordinarily be applied toward the student's major, the student will be permitted to apply the course both toward the major and toward the statistics minor.

- CHEM 3451 - Quantitative Analysis
- DSCI 3870 - Management Science
- ECON 4870 - Introduction to Econometrics
- ECON 4875 - Empirical Linear Modeling
- GEOG 4185 - Statistical Research Methods in Geography
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4310 - Quantum Mechanics
- PSCI 3300 - Political Science Research Methods
- PSYC 3630 - Research in Psychological Measurement

Additional information

Other courses may be permissible if approved in advance by an undergraduate advisor in the Department of Data Analytics and Statistics.

Data Analytics certificate

Training and experience in data analytics is becoming increasingly important in virtually any career. This certificate comprises a collection of courses that undergraduate students from any major may use to complete an undergraduate certificate in data analytics. The certificate provides students with an understanding of fundamental concepts of contemporary statistical and data analytics methods, as well as experience in obtaining, wrangling and learning from big data. Certificate courses emphasize applications of methods for solving problems in science, business, and industry with real-world data and case studies. This certificate helps prepare graduates to be highly competitive in the employment marketplace.

Required courses, 15 hours

This certificate requires five (5) courses:

- ADTA 4130 - Data Analytics and Computational Statistics 1

  or

- STAT 3680 - Applied Statistics

- ADTA 4230 - Data Analytics and Computational Statistics 2
- ADTA 4240 - Principles of Data Structures, Harvesting and Wrangling
- ADTA 4250 - Principles of Data Visualization for Large Data
- ADTA 4340 - Methods for Discovery and Learning from Data

Statistics certificate

A certificate in statistics consists of:

Requirements, 12 hours

Mathematics and Statistics, 9 hours

- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics

One course chosen from

One additional course concerning the application of statistical methods to another discipline is chosen from the following:

- CHEM 3451 - Quantitative Analysis
- DSCI 3870 - Management Science
- ECON 4870 - Introduction to Econometrics
- ECON 4875 - Empirical Linear Modeling
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4410 - Location-Allocation Modeling
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4310 - Quantum Mechanics
- PSCI 3300 - Political Science Research Methods
- PSYC 3630 - Research in Psychological Measurement

Additional information

Other courses may be permissible if approved in advance by an undergraduate advisor in the Department of Data Analytics and Statistics.

Anuradha and Vikas Sinha Department of Data Science

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TDD access: 800-735-2989

E-mail: ds-chair@unt.edu
Web site: https://datascience.unt.edu

Junhua Ding, Chair

Faculty

The Anuradha and Vikas Sinha Department of Data Science is a forward-thinking academic unit dedicated to advancing data-driven discovery, artificial intelligence, and applied analytics. The department provides students with a strong foundation in theoretical principles, computational skills, artificial intelligence, and software engineering, preparing them to excel in data science, machine learning, big data analytics, and AI-driven software development. By integrating cutting-edge research with hands-on learning, the department fosters innovation and prepares graduates for academic, industry, and government careers in the rapidly evolving world of data and AI-driven decision making.

Majors

Data Science, BS

The Bachelor of Science in data science is designed to meet the rising workforce demand for professionals in data management, big data and data analytics fields. It prepares students for careers in data science with a broad knowledge of the tools, techniques and methods needed to work with data and information in an information-intensive environment. Some of the areas this program is concerned with include data management, data modeling, big data, data analytics, data and information visualization, information organization, Internet applications development, game design and technology. The program helps students to acquire the type of skills, critical thinking, and competencies needed in data science and digital data management, as well as one of the professional fields. The program will educate a new generation of information professionals, particularly those students with a science background pursuing an analytics-related field.

Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced. See University Core Curriculum in the Degree and Program Requirements section of this catalog.

Pre-data science requirements, 15 hours

- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- MATH 1650 - Pre-Calculus
- MATH 1680 - Elementary Probability and Statistics

Major requirements, 24 hours

- DTSC 3010 - Introduction to Data Science
- DTSC 3020 - Introduction to Computation with Python
- DTSC 4050 - Statistical Methods for Data Science and Analysis

- DTSC 4501 - Principles of Data Science and Analytics
- INFO 4670 - Data Analysis and Knowledge Discovery
- INFO 4707 - Data Modeling and Data Warehousing
- INFO 4730 - Digital Curation and Preservation
- INFO 4709 - Data Visualization

Professional field, 24 hours

A professional field of 24 hours from information science or a related field, such as business analytics, computer science, digital communications analytics, education analytics, health data analytics and statistics.

Information science professional field

- INFO 4080 - Research Methods and Evaluation
- INFO 4203 - Information Indexing and Organization
- INFO 4206 - Information Retrieval Systems
- INFO 4230 - Records Management Operations
- INFO 4306 - Project Management for Information Systems
- INFO 4307 - Knowledge Management Tools and Technologies
- INFO 4365 - Health Sciences Information Management
- INFO 4745 - Information Architecture

Business analytics professional field

- BCIS 3610 - Basic Information Systems
- DSCI 2710 - Data Analysis with Spreadsheets
- DSCI 3710 - Business Statistics with Spreadsheets
- DSCI 3870 - Management Science
- DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making

Minor

None.

Electives, 15 hours

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree.

Advanced courses in a related field such as business analytics, computer science, digital communications analytics, education analytics, health data analytics and statistics.

- BCIS 3615 - Business Communication for Information Technology Professionals
- BCIS 3630 - Object-Oriented Programming for Business
- BCIS 3680 - Advanced Object-Oriented Programming for Business
- BCIS 4610 - Analysis of Business Information Systems
- BCIS 4620 - Introduction to Database Applications
- BCIS 4630 - Fundamentals of Information Technology Security
- BCIS 4660 - Introduction to Data Warehousing
- BCIS 4690 - Information Technology Management
- BCIS 4720 - Web-Based Information Technologies
- DTSC 3901 - Data Science Internship Project

Other requirements

A grade of C or higher is required in all Pre-Data Science, Major courses, Professional field, and Supporting field courses. A 2.0 UNT, 2.0 Overall, and 2.7 Professional/Supporting Field GPA is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1650 - Pre-Calculus	5 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	Communication core	3 hours
American History core	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
BCIS Elective	3 hours	BCIS Elective	3 hours
Total	17 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
CSCE 1030 - Computer Science I	3 hours	CSCE 1040 - Computer Science II	3 hours
American History core	3 hours	MATH 1710 - Calculus I	4 hours
Language, Philosophy and Culture core	3 hours	Creative Arts core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Data Science Professional Field	3 hours	Data Science Professional Field	3 hours
Total	15 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
DTSC 3010 - Introduction to Data Science	3 hours	DTSC 4050 - Statistical Methods for Data Science and Analysis	3 hours
DTSC 3020 - Introduction to Computation with Python	3 hours	DTSC 4501 - Principles of Data Science and Analytics	3 hours
Component Area Option B core	3 hours	Data Science Professional Field	3 hours
Data Science Professional Field	3 hours	BCIS Elective	3 hours
BCIS Elective	3 hours	BCIS Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
INFO 4670 - Data Analysis and Knowledge Discovery	3 hours	INFO 4730 - Digital Curation and Preservation	3 hours
INFO 4707 - Data Modeling and Data Warehousing	3 hours	Data Science Professional Field	3 hours
INFO 4709 - Data Visualization	3 hours	Data Science Professional Field	3 hours
Data Science Professional Field	3 hours	Elective	3 hours
Data Science Professional Field	3 hours		
Total	15 hours	Total	12 hours

Grad Track Options

Data Science, BS with grad track option leading to Data Science, MS

Application and registration process

- Declared Bachelor of Science in Data Science (BSDS) students with:
  - a cumulative GPA 3.5 or higher for the last 60 hours completed;
  - 75 or more credit hours completed; and
  - who are registered within the BSDS degree as pursuing one of the focus areas, may apply during their junior year.
- The following courses must be completed with a grade of C or higher or be in progress at the time of application:
  - MATH 1650 - Pre-Calculus
  - MATH 1680 - Elementary Probability and Statistics
  - CSCE 1030 - Computer Science I
  - CSCE 1040 - Computer Science II
- Students apply to the University of North Texas Toulouse Graduate School.
- Students apply to the College of Information, Department of Information Science.
- Students may not take a graduate class until 90 credit hours have been completed, and must complete their BSDS degree within one year of taking their first graduate course within the track in order to have the courses transferred to their graduate plan.

Admission process and standards

To be admitted to the program, students submit the following items as detailed in the College of Information, Department of Information Data Science application portal: https://informationscience.unt.edu/admission-ms-data-science

- Submit an experience write-up;
- resume or CV;
- Data Science application; and
- Two (2) recommendations.

Communication and monitoring

Students are given a copy of this process form by their BSDS advisor to

- clarify all application and admissions requirements;
- notify students that they remain undergraduates until all undergraduate degree requirements and their BSDS degree is posted to their transcript;
- notify students that they are not eligible for most graduate perquisites, including teaching and research assistantships and related health insurance, financial aid, or graduate award programs until their undergraduate degree is posted; and
- notify students that graduate courses successfully completed as a part of the grad track will be transferred officially as pass/fail credits to their graduate transcript, not factoring into the graduate GPA.

Student progress will be monitored through transcript and academic progress reports to the BADS faculty coordinator and the MS Data Science graduate coordinators after each term, provided by the advisor. *The cumulative GPA must remain above 3.0, with no course grades below C for the student to be considered to be making satisfactory academic progress in the grad track. A student who fails to meet this standard will be removed from the grad track program.*

Course options

Accepted students will complete two graduate courses (6 hours) to complete the focus area in Data Science within the BSDS degree program.

- INFO 5307 - Knowledge Management Tools and Technologies
- INFO 5503 - Knowledge Management Processes and Practices
- INFO 5707 - Data Modeling for Information Professionals
- INFO 5709 - Data Visualization and Communication

- INFO 5731 - Computational Methods for Information Systems
- INFO 5735 - Usability and User Experience Metrics
- INFO 5737 - Information and Cyber-Security
- INFO 5810 - Data Analysis and Knowledge Discovery

All remaining courses required for the Data Science, BS must also be completed.

Department of Information Science

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Mark Albert, Chair

Faculty

The Bachelor of Science with a major in information science at the University of North Texas will equip graduates with the knowledge needed to build competencies in important and emerging areas such as:

- information organization,
- information architecture,
- information seeking and analysis,
- health informatics,
- knowledge management,
- digital content and digital curation, and
- information systems.

The BS with a major in information science prepares students for a career at the intersection of information, people and technology. Students earning this degree are able to customize their program by developing focused areas of study (concentrations) or by choosing a minor or certificate in another field.

Information has increased in importance, opening the door to exciting opportunities. A key component of the information science program is its flexibility. Courses are offered in a variety of formats, including face-to-face, online and blended, that allows you to balance classes with full-time or part-time employment.

Academic advising

Advising on courses, programs and related questions is available through the college advising office, Discovery Park, Room C232; 940-565-2445; ci-advising@unt.edu. All students should have an approved degree audit on file as early as possible, but not later than the beginning of the final 60 hours of courses. Out of state students must contact the college advising office for advising clearance before registering for classes. Calls and visits by prospective students are welcomed from 9 a.m. to 5 p.m. Monday through Friday.

Bachelor of Science with a major in information science

The bachelor's program goal is to provide general educational preparation for students planning to enter the information professions. The bachelor's program objectives are for students to demonstrate knowledge and skills related to:

- the roles and impacts of information policies, practices, and information itself on diverse populations in a rapidly changing technological and global information society;
- human information needs and behavior in order to develop and implement information systems and services that meet user needs;
- professional practices necessary to succeed in information-related occupations and to pursue the professional master's degree; and
- the philosophy, principles, and legal and ethical responsibilities of the field.

Requirements

Recognizing that each student is unique, with different interests and career goals, each application is reviewed on its own merit. Because the interdisciplinary nature of the profession attracts people with diverse backgrounds, students are encouraged to discuss their interests and concerns with an advisor from the department. Students must be admitted to the university in order to be accepted in the information science program.

To enroll in more than 6 hours of courses in the department, students must have the following:

- at least sophomore standing and
- a cumulative grade point average of at least 2.5.

For graduation, candidates to the Bachelor of Science with a major in information science must meet the following requirements:

University requirements

- A student must have completed a minimum of 120 semester hours, of which 42 must be upper level.
- See University Core Curriculum Requirements in the Academics section of this catalog for university core curriculum requirements.

Information science major requirements

- At least 33 hours including 18 hours of required courses in one of the program concentrations, and at least 15 additional hours selected with the approval of the department.
- Cross-functional—45 hours may be completed or transferred from related areas and programs as approved by the department. Students must contact an advisor in the information science program to determine the 45 hours of course work needed to complete the cross-functional area of the degree.
- A minimum grade point average of 2.5 is required on all courses counted toward the major.

Program Concentrations

Data Science

Data Science is an emerging field involving systematic and methodological approach to managing and manipulating large data sets. The concentration in Data Science is designed to help graduates gain skills and experiences in designing, implementing and transforming data sets into actionable knowledge. IT provides them with the knowledge and competencies needed to work with analytic tools and technologies.

Information science and knowledge organization

Provides graduates with the necessary skills and competencies associated with the collection, classification, storage, retrieval, manipulation, packaging and dissemination of information. It prepares graduates to work with information in a variety of formats and different organizational settings.

Project and knowledge management

Provides graduates with the knowledge and the understanding of the convergence of project management and knowledge management, including the use of associated tools and technologies. It prepares them to assume project management responsibilities including project initiation, planning, scheduling, implementation, knowledge retention and knowledge transfer.

Information management and health informatics

Provides graduates with the skills and competencies needed to work in a healthcare environment and work with health information such as patient information, medical records, medical imaging and clinical research data. Students in the program will explore how to effectively use technology to improve the efficiency and quality of healthcare including reducing cost, increasing patient access, and improving diagnosis and treatment.

Digital content and information systems

Provides graduates with practical knowledge needed to manage the increasingly growing volume of digital information. Graduates will have a better understanding of the tools and technologies needed to manage large amounts of data and complex information systems. Students enrolled in the program will have a better understanding of human–computer interaction issues and interfaces.

Scholarships

There are various scholarships for which information science majors who are entering freshmen, transfer students or continuing students may apply. For specific information and application forms, contact the department chair, administrative assistant, or visit the web page: http://informationscience.unt.edu/scholarships-and-awards.

Majors

Health Informatics, BS

The BS in Health Informatics (BSHI) program is recognized as a STEM undergraduate degree and will be offered in three modes: face-to-face, online and at Frisco. The purpose of the BSHI program is to prepare students to use and implement information and technology solutions to improve the delivery of healthcare.

Educational objectives

Graduates will be able to:

- Describe the framework of modern healthcare and the current major challenges facing healthcare.
- Identify the concepts, methods, and tools related to managing data, information, and technology in the healthcare sector.
- Explain the role of information systems in healthcare and major issues surrounding their use, including privacy and security.
- Use analytic techniques and tools to improve the delivery of healthcare.
- Demonstrate communication and teamwork skills in the implementation of health informatics solutions.

Hours required and general/college requirements

A minimum of 120 semester hours, 42 must be advanced, and fulfillment of degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog.

Required courses, 33 hours

- DTSC 3030 - Cyber Ethics for Data Scientists
- DTSC 4050 - Statistical Methods for Data Science and Analysis
- HINF 4506 - Artificial Intelligence in Health
- HINF 4770 - Introduction to Health Data Analytics
- INFO 4306 - Project Management for Information Systems
- INFO 4365 - Health Sciences Information Management
- INFO 4637 - Medical Informatics
- INFO 4670 - Data Analysis and Knowledge Discovery
- INFO 4707 - Data Modeling and Data Warehousing
- INFO 4709 - Data Visualization
- INFO 4745 - Information Architecture

Electives, 45 hours

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor at the College of Information.

Other requirements

Students must maintain a minimum grade point average (GPA) of 2.5 across all major courses taken.

Information Science, BS

The Bachelor of Science in Information Science (BSIS) equips graduates with the knowledge, skills and abilities to work in a variety of current and emerging areas in the information field. Information Science focuses on the intersection of people, information, and technology. Students gain a foundation in the discipline and professional practice through a set of core courses, a selection of specializations and through multiple experiential learning experiences. The BSIS program offers a flexible range of concentrations, including professional and technological fields, which prepare students with marketable competencies. Concentrations chosen by students in this program often become an area of specialization for graduate study.

The Bachelor of Science with a major in information is recognized as a STEM undergraduate degree. It is a professional degree designed to prepare the student for a career and/or further studies in the practice and the discipline at the intersection of people, information, and technology.

Program Goals

- To prepare learners with the knowledge, skills and abilities to construct and deliver solutions, services and processes at the intersection of people, information, and technology.
- To develop in learners their capabilities to analyze, design, implement, evaluate, manage and lead to address and meet social, organizational and individual information needs.
- To provide learners with rigorous courses, experiential learning and real-world opportunities leading to successful and worthwhile careers in the information field.

Student Outcomes

Student outcomes for the Bachelor of Science in information science indicate specific, demonstrable (measurable) and learner-centered statements of the knowledge and skills graduates of the program will be able to demonstrate:

- Collect, analyze and interpret data to identify and understand people's information needs and behaviors.
- Design, implement and evaluate user-centered technical systems and applications to meet people's information needs and behaviors.
- Use and/or construct processes and procedures to solve problems related to organizing, managing and preserving data, information and knowledge for diverse user groups.
- Discuss and explain professional, social, policy, ethical, legal and security issues and responsibilities of information professionals and researchers.
- Employ and practice excellent written and spoken communication and effective interpersonal skills, whether working in teams or as an individual.
- Recognize that you are responsible for your learning and demonstrate abilities to be an independent and life-long learner.

Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Information degree requirements.

Degree requirements

Students must be admitted to the university prior to being accepted in the information science program. Students must meet all general requirements for admission to undergraduate study as stated in the admission section of this catalog. To enroll for more than 6 hours of courses in the Department of Information Science, students must have the following:

- At least sophomore standing
- At least junior standing is required to enroll for more than 12 hours in the department.
- A cumulative grade point average of at least 2.5.

Required courses, 15 hours

Information science majors must complete 33 credit hours of coursework. The five required core courses cover the following main topics:

- INFO 4100 - Introduction to Information Sciences (Introduction to Information, Information Science and Information Technologies)
- INFO 4203 - Information Indexing and Organization (Information Organization and Management)
- INFO 4306 - Project Management for Information Systems (Project and Knowledge Management)
- INFO 4709 - Data Visualization (Data Science)
- INFO 4730 - Digital Curation and Preservation (Digital Content and Information Systems)

Concentration Electives

The program recommends specific elective courses to enhance students' preparation for professional information work. This approved list of electives fulfills the total number of hours required for the degree and meets advanced hour requirements.

- DTSC 3030 - Cyber Ethics for Data Scientists
- DTSC 4410 - Network and Data Security for Data Scientists
- DTSC 4420 - Principles of Data Science Forensics
- DTSC 4430 - Cloud Security for Data Scientists
- INFO 1700 - A.I. and Me: Technology Ethics for the Information Ecosystem
- INFO 2010 - Informatics and Society
- INFO 2091 - Saving Culture: An Introduction to Archival Studies
- INFO 3385 - Community Language Archives & Digital Repositories
- INFO 3647 - Legal Research, Information, and Access
- INFO 4080 - Research Methods and Evaluation
- INFO 4300 - Administration of Information Agencies
- INFO 4400 - Evaluation and Development of Information Resources
- INFO 4430 - Information Resources for Young Adults
- INFO 4615 - Electronic Information Services
- INFO 4620 - Information Resources in the Humanities

Other requirements

Students must maintain a minimum grade point average (GPA) of 2.5 across all Information Science major courses taken.

A maximum of 13 hours of WECM and/or technical credit from a regionally accredited college may be applied to free elective requirements only.

Concentration courses, 18 hours

Concentrations are comprised of 6 required courses totaling 18 credit hours. Required concentration courses may not be used to fulfill the concentration electives. Current concentrations are:

- Information Science and Knowledge Organization
- Project and Knowledge Management
- Information Management and Health Informatics
- Digital Content and Information Systems
- Data Science

Information Science with a concentration in Information Science and Knowledge Organization, BS

Concentration courses

- INFO 4206 - Information Retrieval Systems
- INFO 4223 - Introduction to Descriptive Metadata for Organizing Information
- INFO 4230 - Records Management Operations
- INFO 4710 - Information Technology Management
- Any course from Approved List of Electives
- Any course from Approved List of Electives

Four-year degree plan of Concentration in Information Science and Knowledge Organization (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Live and Physical Sciences core	3 hours
Creative Arts core	3 hours	Social and Behavioral Sciences core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Live and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
INFO 4230 - Records Management Operations	3 hours	INFO 4206 - Information Retrieval Systems	3 hours
INFO 4223 - Introduction to Descriptive Metadata for Organizing Information	3 hours	INFO 4710 - Information Technology Management	3 hours
Information Science core	3 hours	Information Science core	3 hours
Elective	3 hours	Information Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Information Science core	3 hours	Component Area Option B core	3 hours
INFO Elective	3 hours	Information Science core	3 hours
Elective	3 hours	INFO Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Information Science with a concentration in Project and Knowledge Management, BS

Concentration courses

- INFO 3647 - Legal Research, Information, and Access
- INFO 4230 - Records Management Operations
- INFO 4307 - Knowledge Management Tools and Technologies
- INFO 4710 - Information Technology Management
- Any course from Approved List of Electives
- Any course from Approved List of Electives

Four-year degree plan of Project and Knowledge Management (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Live and Physical Sciences core	3 hours
Creative Arts core	3 hours	Social and Behavioral Sciences core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Live and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
INFO 4230 - Records Management Operations	3 hours	INFO 3647 - Legal Research, Information, and Access	3 hours
INFO 4710 - Information Technology Management	3 hours	INFO 4307 - Knowledge Management Tools and Technologies	3 hours
Information Science core	3 hours	Information Science core	3 hours
Elective	3 hours	Information Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Information Science core	3 hours	Component Area Option B core	3 hours
INFO Elective	3 hours	Information Science core	3 hours
Elective	3 hours	INFO Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Information Science with a concentration in Information Management and Health Informatics, BS

Concentration courses

Six courses (18 hours) related to Health Informatics. Two of these six courses may be chosen from the Approved List of Electives.

Four-year degree plan of Concentration in Information Management and Health Informatics (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Creative Arts core	3 hours	Social and Behavioral Sciences core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
INFO 4365 - Health Sciences Information Management	3 hours	INFO 4637 - Medical Informatics	3 hours
INFO 4670 - Data Analysis and Knowledge Discovery	3 hours	INFO 4710 - Information Technology Management	3 hours
Information Science core	3 hours	Information Science core	3 hours
Elective	3 hours	Information Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Information Science core	3 hours	Component Area Option B core	3 hours
INFO Elective	3 hours	Information Science core	3 hours
Elective	3 hours	INFO Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Information Science with a concentration in Digital Content and Information Systems, BS

Concentration courses

- INFO 3385 - Community Language Archives & Digital Repositories
- INFO 4206 - Information Retrieval Systems
- INFO 4710 - Information Technology Management
- INFO 4745 - Information Architecture
- Any course from Approved List of Electives
- Any course from Approved List of Electives

Four-year degree plan of Concentration in Digital Content and Information Systems (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Creative Arts core	3 hours	Social and Behavioral Sciences core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
INFO 3385 - Community Language Archives & Digital Repositories	3 hours	INFO 4710 - Information Technology Management	3 hours
INFO 4206 - Information Retrieval Systems	3 hours	INFO 4745 - Information Architecture	3 hours
Information Science core	3 hours	Information Science core	3 hours
Elective	3 hours	Information Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Information Science core	3 hours	Component Area Option B core	3 hours
INFO Elective	3 hours	Information Science core	3 hours
Elective	3 hours	INFO Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Information Science with a concentration in Data Science, BS

Concentration courses

- DTSC 4050 - Statistical Methods for Data Science and Analysis
- DTSC 4501 - Principles of Data Science and Analytics
- INFO 4670 - Data Analysis and Knowledge Discovery
- INFO 4707 - Data Modeling and Data Warehousing
- Any courses from Approved List of Electives
- Any courses from Approved List of Electives

Four-year degree plan of Concentration in Data Science (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Creative Arts core	3 hours	Social and Behavioral Sciences core	3 hours
Mathematics core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
DTSC 4050 - Statistical Methods for Data Science and Analysis	3 hours	DTSC 4501 - Principles of Data Science and Analytics	3 hours
INFO 4707 - Data Modeling and Data Warehousing	3 hours	INFO 4670 - Data Analysis and Knowledge Discovery	3 hours
Information Science core	3 hours	Information Science core	3 hours
Elective	3 hours	Information Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Information Science core	3 hours	Component Area Option B core	3 hours
INFO Elective	3 hours	Information Science core	3 hours
Elective	3 hours	INFO Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Health Informatics, BS with grad track option leading to Health Informatics, MS

The Department of Information Science offers a grad track option for existing UNT undergraduate students pursuing the Bachelor of Science in Health Informatics degree. In this grad track option, students can take a maximum of 9 credit hours of graduate courses while completing the Health Informatics, BS. These credits will be counted toward first the BS degree and then the Master of Science in Health Informatics.

Prior to registering for the specified graduate courses, the student must have been admitted to the grad track option and obtained approvals from the appropriate undergraduate and/or graduate advisors.

Admission requirements and program policies

Admission requirements

1. A student may apply for the grad track option during their junior year (and must have completed at least 75 credit hours at the time of application to grad track).
2. A minimum of 3.5 cumulative GPA is required at the time of application submission.
3. The student will provide two recommendation forms completed by UNT faculty members (one of whom must be from the Department of Information Science) who can evaluate the student's ability to complete graduate-level work.
4. The application will be reviewed by the College of Information admissions and advising student support services office and the undergraduate and graduate advisors.
5. Admission to the MS in Health Informatics program will require the completion of the Bachelor of Science in Health Informatics. Conditional admission may be granted after successfully completing 90 credit hours.
6. Once approved, the student must apply to the Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After completing 90 credit hours, the student can start taking the graduate courses as grad track electives for the health informatics degree requirement. The accepted graduate courses for the HI grad track are listed below. If the student wants to take other graduate courses for the grad track credits, he/she needs to obtain approvals from the Information Science department chair, or the graduate faculty advisor, and the director or assistant director of the College of Information (COI) advising and admissions student support services office. For these graduate courses to be counted toward requirements for the MS degree, the student should earn a B or above in the approved graduate courses.
2. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA on the specified graduate courses, he/she will be fully admitted to the MS program.
3. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they start taking graduate courses, or enrollment in graduate-level course work will be suspended.
4. The student must enroll in graduate school in the next long semester after finishing his/her BS degree and should take the remaining graduate courses in the following 12 months to complete his/her MS degree. If the student does not enroll in graduate school in the next long semester after finishing his/her BS degree, those graduate course credit hours taken as part of grad track will not be applied to the MS degree, even if the student comes back for graduate school in the future.

Program requirements

Students may take 9 hours from the following:

- HINF 5506 - Applications of Artificial Intelligence in Health (replaces HINF 4506 - Artificial Intelligence in Health).
- HINF 5365- Information Systems in Healthcare (replaces INFO 4365 - Health Sciences Information Management).
- HINF 5637 - Fundamentals of Health Informatics (replaces INFO 4637 - Medical Informatics).
- HINF 5770 - Introduction to Health Data Analytics (replaces HINF 4770 - Introduction to Health Data Analytics).

All remaining courses for Health Informatics, BS must be completed.

Information Science, BS with grad track option leading to Information Science, MS

The Department of Information Science offers a grad track option for existing UNT undergraduate students with a major in information science (IS). In this grad track option, students can take a maximum of 9 credit hours of graduate courses while completing the information science BS degree. These credits will be counted toward first the bachelor's degree and then the Master of Science in information science.

Prior to registering for the specified graduate courses, the student must have been admitted to the grad track option and obtained approvals from the appropriate undergraduate and/or graduate advisors.

Admission requirements and program policies

Admission requirements

1. Students should be a major in the UNT information science Bachelor of Science program.
2. A student may apply for the grad track option during his/her junior year (and must have completed at least 75 credit hours at the time of application to grad track).
3. Minimum of 3.5 cumulative GPA required at the time of application submission.
4. The student will provide two recommendation forms from information science faculty members who can evaluate the student's ability to complete graduate level work.
5. The application will be reviewed by the College of Information (COI) advising and admissions student support services office and both the undergraduate and graduate advisors.
6. Once approved, the student must apply to Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After completing 90 credit hours, the student can start taking the graduate courses as grad track electives for the BS degree requirement with a major in information science (IS). The accepted graduate courses for the IS grad track are listed below. If the student wants to take other graduate courses for the grad track credits, he/she needs to obtain approvals from the LIS department chair, or the graduate faculty advisor, and the director or assistant director of the College of Information (COI) advising and admissions

student support services office. For these graduate courses to be counted toward requirements for the MS degree, the student should earn a B or above in the approved graduate courses.

2. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the bachelor's degree and maintained a 3.0 or higher GPA on the specified graduate courses, he/she will be fully admitted to the MS program.
3. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester, in which they start taking graduate courses, or enrollment in graduate level course work will be suspended.
4. The student must enroll in graduate school in the next long semester after finishing his/her bachelor's degree and should take the remaining graduate courses in the following 12 months to complete his/her MS degree. If the student does not enroll in graduate school in the next long semester after finishing his/her bachelor's degree, those graduate course credit hours taken as part of grad track will not be applied to the MS degree, even if the student comes back for graduate school in the future.

Program requirements

- INFO 5080 - Research Methods and Analysis (replaces INFO 4080 - Research Methods and Evaluation)
- INFO 5230 - Documents and Records Management (replaces INFO 4230 - Records Management Operations)
- INFO 5305 - Systems Analysis and Design (replaces an INFO 3000/4000 elective)
- INFO 5306 - Project Management for Information Systems (replaces INFO 4306 - Project Management for Information Systems)
- INFO 5615 - Electronic Databases and Information Services (replaces INFO 4615 - Electronic Information Services)
- INFO 5707 - Data Modeling for Information Professionals (replaces an INFO 3000/4000 elective)
- INFO 5814 - Web Content Development and Maintenance (replaces an INFO 3000/4000 elective)

All remaining courses for Information Science, BS must be completed.

Information Science, BS with grad track option leading to Library Science, MS

The Department of Information Science offers a grad track option for existing UNT undergraduate students with a major in information science. In this grad track option, students can take a maximum of 9 credit hours of graduate courses while completing the information science BS. These credits will be counted toward first the BS degree and then the Master of Science in library science.

Prior to registering for the specified graduate courses, the student must have been admitted to the grad track option and obtained approvals from the appropriate undergraduate and/or graduate advisors.

Admission requirements and program policies

Admission requirements

1. Students should be a major in the UNT information science Bachelor of Science program.
2. A student may apply for the grad track option during his/her junior year (and must have completed at least 75 credit hours at the time of application to grad track).
3. Minimum of 3.5 cumulative GPA required at the time of application submission.
4. The student will provide two recommendation forms from information science faculty members who can evaluate the student's ability to complete graduate-level work.
5. The application will be reviewed by the College of Information (COI) advising and admissions student support services office and both the undergraduate and graduate advisors.
6. Once approved, the student must apply to Toulouse Graduate School within the first semester of the senior year.

Program policies

1. After completing 90 credit hours, the student can start taking the graduate courses as grad track electives for the information science degree requirement with a concentration in library science (LS). The accepted graduate courses for the LS grad track are listed below. If the student wants to take other graduate courses for the grad track credits, he/she needs to obtain approvals from the LIS department chair, or the graduate faculty advisor, and the director or assistant director of the College of Information (COI) advising and admissions student support services office. For these graduate courses to be counted toward requirements for the MS degree, the student should earn a B or above in the approved graduate courses.
2. The students admitted to the grad track option will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BS degree and maintained a 3.0 or higher GPA on the specified graduate courses, he/she will be fully admitted to the MS program.
3. Undergraduate students who have been accepted to a grad track option should complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they start taking graduate courses, or enrollment in graduate-level course work will be suspended.
4. The student must enroll in graduate school in the next long semester after finishing his/her BS degree and should take the remaining graduate courses in the following 12 months to complete his/her MS degree. If the student does not enroll in graduate school in the next long semester after finishing his/her BS degree, those graduate course credit hours taken as part of grad track will not be applied to the MS degree, even if the student comes back for graduate school in the future.

Program requirements

- INFO 5080 - Research Methods and Analysis (replaces INFO 4080 - Research Methods and Evaluation)
- INFO 5230 - Documents and Records Management (replaces INFO 4230 - Records Management Operations)
- INFO 5300 - Management of Information Agencies (replaces INFO 4300 - Administration of Information Agencies)
- INFO 5306 - Project Management for Information Systems (replaces INFO 4306 - Project Management for Information Systems)
- INFO 5400 - Collection Development and Management (replaces INFO 4400 - Evaluation and Development of Information Resources)
- INFO 5615 - Electronic Databases and Information Services (replaces INFO 4615 - Electronic Information Services)

All remaining courses for Information Science, BS must be completed.

Information Management and Health Informatics minor

A minor in information management and health informatics requires 18 hours and is open to all majors. Courses offered by other departments may be applied to the minor if approved by the information science advisor. For more information, contact the main office at 940-565-3736.

Required courses, 18 hours

- INFO 4365 - Health Sciences Information Management
- INFO 4637 - Medical Informatics
- INFO 4670 - Data Analysis and Knowledge Discovery
- INFO 4710 - Information Technology Management
- INFO 4910 - Special Problems
- INFO 4970 - Information Science Seminar

Information Science and Knowledge Organization minor

A minor in information science and knowledge organization requires 18 hours and is open to all majors. Courses offered by other departments may be applied to the minor if approved by the information science advisor. For more information, contact the main office at 940-565-3736.

Required courses, 18 hours

- INFO 4206 - Information Retrieval Systems
- INFO 4223 - Introduction to Descriptive Metadata for Organizing Information
- INFO 4230 - Records Management Operations
- INFO 4710 - Information Technology Management
- Any course from Approved List of Electives
- Any course from Approved List of Electives

Approved List of Electives

- DTSC 3030 - Cyber Ethics for Data Scientists
- DTSC 4410 - Network and Data Security for Data Scientists
- DTSC 4420 - Principles of Data Science Forensics
- DTSC 4430 - Cloud Security for Data Scientists
- INFO 1700 - A.I. and Me: Technology Ethics for the Information Ecosystem
- INFO 2010 - Informatics and Society
- INFO 2091 - Saving Culture: An Introduction to Archival Studies
- INFO 3385 - Community Language Archives & Digital Repositories
- INFO 3647 - Legal Research, Information, and Access
- INFO 4080 - Research Methods and Evaluation
- INFO 4300 - Administration of Information Agencies
- INFO 4400 - Evaluation and Development of Information Resources
- INFO 4430 - Information Resources for Young Adults
- INFO 4615 - Electronic Information Services
- INFO 4620 - Information Resources in the Humanities

Cybersecurity for Data Scientists certificate

The Cybersecurity for Data Scientists certificate is part of the existing Bachelor of Science in Data Science, which prepares students for careers in data science through a broad knowledge of the tools, techniques, and methods needed to analyze and work with data and information to help drive effective decisions and strategy in organizations. The new certificate is part of a Department of Homeland Security (DHS) grant that is in line with UNT's strategic plan and objectives of increasing research expenditure, elevating national prominence, and preparing students for a competitive workplace. Existing course work in the bachelor's degree educates students in key areas such as data management, data modeling, big data, data analytics, data and information visualization, information organization, internet applications development, and game design and technology. The Cybersecurity for Data Scientists certificate will help students protect themselves from cyber threats and enable them to take countermeasures if an incident takes place.

Requirements

Completion of 4 required courses (3 credit hours each) for a total of 12 credit hours.

- DTSC 3030 - Cyber Ethics for Data Scientists
- DTSC 4410 - Network and Data Security for Data Scientists
- DTSC 4420 - Principles of Data Science Forensics
- DTSC 4430 - Cloud Security for Data Scientists (or CSCE 4570 - Information Privacy)

Department of Learning Technologies

Main Office
Discovery Park, Room G150

Mailing address:
3940 N. Elm Street
Denton, TX 76207-7102
940-565-2057
Fax: 940-565-4194
Web site: www.lt.unt.edu

Xun Ge, Chair

Faculty

Learning technologies continue to change the face of learning and training internationally, nationally, regionally and statewide. The degree programs in the Department of Learning Technologies are nationally and internationally known for preparing future educators and technology professionals to advance knowledge of technology tools and their applications. Faculty members within the department continue this leadership role through scholarship, grant acquisition, teaching, and service activities.

Learning technologies graduates play key roles in a wide variety of educational and business settings such as principals of schools, technology coordinators, web designers and developers, technical consultants, higher education faculty, instructional designers, and researchers. Their impact on learning technologies will continue to evolve and expand over the next few decades. The vision of the learning technologies department is to provide students with knowledge and experience that add value to learning technologies through research, product development, and application of current tools to solve educational problems.

Academic advising

Advising on courses, programs and related questions is available through the college advising office, Discovery Park, Room C232; 940-565-2445; ci-advising@unt.edu. Students are encouraged to contact their advisors each term/semester for help with program decisions and enrollment. All students should have an approved degree audit on file as early as possible, but not later than the beginning of the final 30 hours of courses. See individual programs below for more information. Calls and visits by prospective students are also welcome from 8 a.m. to 5 p.m. Monday through Friday.

Learning technologies

The program in learning technologies offers a minor in computer education, as well as a number of elective and service courses designed to enhance the preparation of classroom teachers and corporate professionals by providing opportunities for them to learn about and integrate technology.

Majors

Learning Technologies, BAS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Sciences degree as specified by the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Information requirements.

Major requirements, 66 hours

Broken down into area of specialization, technical and professional foundations, and technical and professional development concentrations.

Area of specialization, 21 hours

Comprised of courses related to a specific applied STEM occupation, field or subject. This component may include traditional or applied STEM courses completed for an Associate of Applied Science (AAS) degree at a community college. In addition, technical credit received by active-duty military or veterans may be applied to this degree plan. Other students who have not created an area of specialization through courses taken in a community college or in the military, may create one by selecting a primary STEM area of study in consultation with the appropriate advisors.

Technical and professional foundations, 21 hours

The four (4) required foundations courses include:

The four (4) required foundations courses include:

- LTEC 3000 - Foundations of Learning Technologies in STEM
- LTEC 3100 - New Horizons for Learning Technologies in STEM
- LTEC 3200 - Leadership and Ethical Practices for STEM Professionals
- LTEC 4741 - Learning Technologies Capstone

The remaining three (3) foundations courses may be selected from the following courses:

- INFO 4745 - Information Architecture
- LTEC 3220 - Computer Graphics in Education and Training
- LTEC 3260 - Web Authoring
- LTEC 3530 - Data Communications and Networking for Next Generation Learning
- LTEC 4040 - Organizational Development and Performance Improvement
- LTEC 4050 - Entrepreneurship and Performance Improvement
- LTEC 4060 - Project Management and Applied Technology Performance Improvement
- LTEC 4100 - Technology Integration
- LTEC 4160 - Advanced Computer Applications in Education and Training
- LTEC 4550 - Network Systems Administration
- LTEC 4560 - Internet Services Administration

Technical and professional development concentrations, 24 hours

Consists of one or two separate multidisciplinary STEM concentrations, developed in collaboration between the BAS program and other appropriate disciplinary units. Each concentration will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans. Prerequisites and/or a series of prerequisite courses may be required for certain concentrations. This component may include traditional or applied STEM courses completed for an Associate of Applied Science (AAS) degree at a community college. In addition, technical credit received by active-duty military or veterans may be applied to this degree plan.

Minor requirements

None required.

Electives, 12 hours

Varies with individual program. Any approved UNT courses the student and the advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level coursework. This component may include traditional or applied STEM courses completed for an Associate of Applied Science (AAS) degree at a community college. In addition, technical credit received by active-duty military or veterans may be applied to this degree plan.

Other requirements

- A total of 36 hours of upper-division work
- At least 24 hours of upper-division work in residence
- A total of 60 hours of applied or traditional STEM coursework (may come from major requirements or electives)

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Mathematics core	3 hours	STEM Area of Specialization	3 hours
STEM Area of Specialization	3 hours	STEM Area of Specialization	3 hours
STEM Area of Specialization	3 hours	STEM Area of Specialization	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Social and Behavioral Sciences core	3 hours	STEM Area of Specialization	3 hours
STEM Area of Specialization	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
LTEC 3000 - Foundations of Learning Technologies in STEM	3 hours	LTEC 3200 - Leadership and Ethical Practices for STEM Professionals	3 hours
LTEC 3100 - New Horizons for Learning Technologies in STEM	3 hours	Technical and Professional Development Concentration	3 hours
Government/Political Science core	3 hours	Technical and Professional Development Concentration	3 hours
Technical and Professional Development Concentration	3 hours	Technical and Professional Development Concentration	3 hours
Technical and Professional Development Concentration	3 hours	Learning Tech Foundations	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Technical and Professional Development Concentration	3 hours	LTEC 4741 - Learning Technologies Capstone	3 hours
Technical and Professional Development Concentration	3 hours	Component Area Option B core	3 hours
Learning Tech Foundations	3 hours	Technical and Professional Development Concentration	3 hours
Elective	3 hours	Learning Tech Foundations	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Learning Technologies, BAS with grad track option leading to Learning Technologies, MS

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take twelve credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MS degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

The Learning Technologies, BAS is 120 credit hours. The Learning Technologies, MS is 36 hours. Up to 12 hours will be used twice. Allow the substitution of 12 hours from the following courses:

- LTEC 5030 - Foundations of Learning Technologies (Professional Development Concentration 4xxx-level course)
- LTEC 5210 - Instructional Systems Design I (Professional Development Concentration 4xxx-level course)
- LTEC 5300 - Learning and Cognition (Professional Development Concentration 4xxx-level course)
- LTEC 5xxx - Learning Technologies Program concentration (Professional Development Concentration 4xxx-level course)

Note

All remaining courses for the Learning Technologies, BAS must be completed.

College of Liberal Arts and Social Sciences

Main Office
General Academic Building, Room 210

Mailing address:
1155 Union Circle #305189
Denton, TX 76203-5017
940-565-2497
Web site: www.class.unt.edu

Dean's Office for Undergraduates and Student Advising
General Academic Building, Room 220
940-565-2051
Fax: 940-565-4529
Web site: class.unt.edu/advising

Steven Cobb, Interim Executive Dean
Nancy Stockdale, The Dr. Jean Schaake Associate Dean for Academic Affairs
Steven Cobb, Senior Divisional Dean, Division of Communication, Media and Performance
Lisa Henry, Divisional Dean, Division of Social Sciences
Jennifer Wallach, Divisional Dean, Division of Humanities
Lisa Nagaoka, Associate Dean for Research
Kathryn Cullivan, Associate Dean for Fiscal and Human Resources

Faculty

The mission of the College of Liberal Arts and Social Sciences is to amplify human potential to propel transformation with a commitment to explore, discover and create meaningful impact. Students in the College of Liberal Arts and Social Sciences explore critically the interconnected worlds of self and society or a variety of careers.

Consistent with the goals of providing a comprehensive, relevant education, the College of Liberal Arts and Social Sciences prepares students to acquire key proficiencies:

1. written and oral communication;
2. working knowledge of a foreign language and foreign culture;
3. understanding and appreciation of the various fields of learning represented by historical inquiry, the visual and performing arts, the processes of thought in the humanities and philosophy, and the investigation of the causes and consequences of human actions pursued in the social sciences; and
4. knowledge and critical thinking in a chosen discipline and its method of inquiry.

Students in the College of Liberal Arts and Social Sciences will receive the intellectual stimulation and the conceptual framework to explore critically the interconnected worlds of self and society. They will acquire the necessary literacies and broad-based exposure to the main elements of human experience that initiate the lifelong process of being an educated person and, in most instances, also provide the means to enter graduate schools or a variety of careers.

The College of Liberal Arts and Social Sciences consists of the following divisions and areas of study:

Division of Communication, Media and Performance

Department of Communication Studies
Department of Dance and Theatre
Frank W. and Sue Mayborn School of Journalism
Department of Media Arts
Department of Technical Communication
Game Studies and Design program

Division of Social Sciences

Department of Anthropology
Department of Economics
Department of Geography and the Environment
Department of Political Science
Department of Sociology

Division of Humanities

Department of English
Department of History
Department of Philosophy and Religion
Department of Spanish
Department of World Languages, Literatures and Cultures

Interdisciplinary areas of study and other programs

Aerospace Studies
Integrative Studies
International Studies
Jewish Studies
Latino and Latin American Studies
Military Science
Social Science Studies
Women's and Gender Studies

Academic advising

Academic advisors and counselors are available in the College of Liberal Arts and Social Sciences Dean's Office for Undergraduates and Student Advising in the General Academic Building, Room 220, to assist students in the development and pursuit of meaningful educational goals.

The College of Liberal Arts and Social Sciences Dean's Office for Undergraduates and Student Advising has trained academic advisors who are assigned to specific majors. The academic advisors prepare students' degree audits, assist majors with core curriculum issues and requirements for their chosen major, and process graduation applications. Faculty advisors in the department assist the students in their major.

Students starting college at UNT after high school graduation are part of the Take Flight: CLASS First Year Advising program! These students are invited to use the CLASS-Y Scholar Suite in GAB 207 as a study lounge and hub for Academic Advising. The Take Flight Advising Team has four dedicated Academic Counselors for you who will meet with you for individual appointments, specialized academic workshops, and events.

Degree requirements

The basic structure of all bachelor's degrees consists of a large set of general education requirements common to all degrees (University Core Curriculum – 42 hours at UNT), a small set of requirements unique to the school or college offering the degree (college requirements), a set of requirements defining a major field of study as determined by a department (major/professional/concentration – a minimum of 24 hours, including 12 advanced hours earned at UNT), and electives chosen freely or in consultation with an advisor to reach the minimum number of hours required for the degree. A lesser field of study, a minor (minimum of 18 hours), is optional unless specified in the degree requirements. All degrees require that 30 hours be earned at UNT and that at least 42 hours are at the advanced level (3000- and 4000-level courses).

Degree audit

A degree audit is an official document of the university that lists all the courses needed to complete a chosen degree and shows how all of the courses completed are applied toward the degree. Students should file for a degree audit when certain of their major by making an appointment with the faculty advisor in the major department. Transfer students will need to bring:

- copies of transfer transcripts;
- catalog descriptions of transfer courses; and
- the initial Core Curriculum Transfer Evaluation from orientation.

After the degree audit advising session with the faculty advisor, the degree audit request form is sent to the Dean's Office for Undergraduates and Student Advising (GAB, Room 220) for preparation of the degree audit. Within a few weeks, an official degree audit will be emailed to the student's official UNT email address. Students may view their degree audit online at mydegreeaudit.unt.edu anytime or obtain an updated copy each term/

semester from GAB, Room 220. Academic advisors in GAB, Room 220, are available by appointment to assist students with questions that may arise as they chart their progress.

Programs of study

The college offers the following undergraduate degrees:

- Bachelor of Arts
- Bachelor of Science
- Bachelor of Science in Economics
- Minors in a variety of disciplines – see individual departments
- Academic certificates

Candidates for the Bachelor of Arts and Bachelor of Science degrees must satisfy all "General degree requirements" for the bachelor's degree listed in the Degree and Program Requirements section of this catalog, and all requirements of the Liberal Arts and Social Sciences degree requirements listed below. Candidates for the Bachelor of Fine Arts degree must satisfy all requirements for the bachelor's degree listed in the Degree and Program Requirements section of this catalog.

Degree requirements and the University Core Curriculum

Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree requirements and core requirements should consult an academic advisor.

Bachelor of Arts degree requirements

Candidates for the Bachelor of Arts must meet the following requirements.

1. **Hours Required for the Degree:** Completion of a minimum of 120 total semester hours; 42 must be advanced.
2. **General University Requirements:** See "General Degree Requirements" in the Degree and Program Requirements section of this catalog.
3. **College of Liberal Arts and Social Sciences Degree Requirements:** See "Liberal Arts and Social Sciences degree requirements" in this section of the catalog for specific requirements and list of approved courses. See specific degree audit for exact hours.
4. **Major Requirements:** A major as specified by the department with at least 24 semester hours; 12 hours of advanced work in the major must be completed at UNT.
5. **Minor:** See individual major.
6. **Electives:** See individual major.
7. **Other Course Requirements:** See individual major.
8. **Other Requirements:** Completion of all other requirements for a major and a minor as specified by the respective departments.

Bachelor of Science degree requirements

Candidates for the Bachelor of Science must meet the following requirements.

1. **Hours Required for the Degree:** Completion of a minimum of 120 total semester hours; 42 must be advanced.
2. **General University Requirements:** See "General Degree Requirements" in the Degree and Program Requirements section of this catalog.
3. **Major Requirements:** A major as specified by the department with at least 24 semester hours; 12 hours of advanced work in the major must be completed at UNT.
4. **Minor:** See individual major.
5. **Electives:** See individual major.
6. **Other Course Requirements:** See individual major.
7. **Other Requirements:** Completion of all other requirements for a major and a minor as specified by the respective departments.

Core curriculum

Candidates for the Bachelor of Arts and Bachelor of Science degrees in the College of Liberal Arts and Social Sciences must complete the University Core and the college's degree requirements shown below. Candidates for the Bachelor of Science degree may have other options for the foreign language requirement. Candidates for the Bachelor of Fine Arts degree must satisfy the requirements of the University Core Curriculum. Students should see the departmental advisor for their major for more information.

University Core Curriculum

1. **Communication (English Composition and Rhetoric) (6 hours):** See approved list in the University Core Curriculum section of this catalog.
2. **Mathematics (3 hours):** See approved list in the University Core Curriculum section of this catalog.
3. **Life and Physical Sciences (6 hours):** See approved list in the University Core Curriculum section of this catalog.
4. **American History (6 hours):** See approved list in the University Core Curriculum section of this catalog.
5. **Government/Political Science (6 hours):** See approved list in the University Core Curriculum section of this catalog.
6. **Creative Arts (3 hours):** See approved list in the University Core Curriculum section of this catalog.
7. **Language, Philosophy and Culture (3 hours):** See approved list in the University Core Curriculum section of this catalog.
8. **Social and Behavioral Sciences (3 hours):** See approved list in the University Core Curriculum section of this catalog.
9. **Core Option Courses (6 hours):** See approved list in the University Core Curriculum section of this catalog.

Liberal Arts and Social Sciences degree requirements

The following requirements are in addition to the University Core Curriculum requirements for Bachelor of Arts degrees. Students in the Mayborn School of Journalism follow the requirements listed under Mayborn School of Journalism Degree Requirements.

Foreign Language, 3–12 hours (or proficiency)

Must attain Intermediate II (2050) level (prerequisite for 2050 course is 2040; prerequisite for 2040 course is 1020; prerequisite for 1020 course is 1010). Majors in Communication Studies, Content Strategy, Converged Broadcast Media, Media Arts and Theatre are not required to complete the Foreign Language requirement.

Distribution Requirement (6 hours)

Courses that will allow students to possess a greater understanding of cultural diversity and global issues, as well as communication and digital skills necessary to be competitive in the workforce.

Cultural Diversity and Global Issues (3 advanced hours in one course taken at UNT)

Courses focused on cultural diversity in regional, national or international contexts, depending on the nature of the course.

3 hours from an approved Study Abroad program can substitute for this requirement.

- ANTH 3140 - Latinos in the U.S.
- ANTH 3210 - Meso America
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3700 - Peoples and Cultures of South Asia
- COMM 3320 - Communication and Conflict Management
- COMM 3620 - Intercultural Communication
- COMM 4260 - Performance and Culture
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 4640 - Latin@ Rhetorics
- DANC 3800 - History of Concert Dance in the U.S.: 1900–Present
- ECON 3150 - Economics of Discrimination
- ECON 4100 - Comparative Economic Systems
- ECON 4650 - Economics of Cities
- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4650 - Literature and the Environment
- ENGL 4670 - Gender and Sexuality in Literature
- FREN 3310 - France Today
- FREN 3210 - The Francophone World
- GEOG 3010 - Economic Geography
- GERM 3050 - Topics in German Literature
- GERM 3052 - German Literary Survey 1750-1918
- GERM 3060 - Advanced German I (Oral Communication)
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 3495 - United States Food History
- JAPN 3020 - Advanced Japanese I
- JOUR 4240 - Comparative International Media Systems
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- MRTS 3420 - Histories of Latin/x American Media
- MRTS 3470 - International Film History to 1945
- MRTS 3475 - International Film History from 1945
- MRTS 4360 - Global Media
- PHIL 4150 - Feminism
- PHIL 4700 - Environmental Philosophy
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3702 - Latin American Politics
- PSCI 3704 - U.S.-Latin American Relations
- PSYC 4030 - Multicultural Psychology
- PSYC 4040 - Psychology of Race in the U.S.
- SOCI 4250 - Gender and Society
- SPAN 3110 - Analysis of Hispanic Literature
- SPAN 4360 - Survey of Spanish-American Literature
- TECM 3550 - Content Strategy in Technical Communication
- THEA 3040 - World Theatre After 1700
- WGST 3100 - LGBTQ Studies
- WGST 3500 - Feminist Foundations
- WGST 4100 - Feminist and Womanist Theories
- WLLC 3000 - Linguistic Landscapes Around the World
- WLLC 3010 - Exploring Global Cultures
- WLLC 3020 - Linguistic Landscapes in the USA
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction
- WLLC 3600 - Japanese Popular Culture
- WLLC 3700 - Classical Mythology

See your academic advisor or www.class.unt.edu/advising for more information and a list of additional approved courses.

Communication and Digital Skills (3 advanced hours in one course taken at UNT)

Courses focused on developing written, oral or visual communication skills using discipline-specific digital technologies.

- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4760 - Inequality, Social Justice and the City
- COMM 3420 - Communication and New Technology
- COMM 3720 - Small Group Communication
- COMM 3820 - Social Media Perspectives
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4320 - Communications and Virtual Gaming
- ECON 4450 - Game Theory
- ECON 4630 - Data Analysis in Economics
- ENGL 3110 - Writing and Rhetoric in the Humanities
- ENGL 4430 - Shakespeare
- ENGL 4440 - Milton
- FREN 3020 - Language Use in Context
- FREN 4040 - French Across Disciplines
- FREN 4150 - Foreign Language Instruction and Assessment
- GEOG 3000 - Geo-literacy: Thinking in Space
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4580 - GIS in Health
- GERM 3034 - Advanced German Grammar
- GERM 3070 - Advanced German II (Written Communication)
- GERM 4150 - Foreign Language Instruction and Assessment
- HIST 3450 - Islam and its Empires
- HIST 4271 - Hollywood and the Wild West
- HIST 4830 - Rise and Fall of the Slave South
- JAPN 3030 - Advanced Japanese II
- JAPN 4150 - Foreign Language Instruction and Assessment
- JOUR 4270 - Strategic Social Media
- MRTS 3210 - Audio Production
- MRTS 3220 - Multi Camera Studio Production
- MRTS 3230 - Film Style Production

- MRTS 3500 - Reporting, Videography and Editing for Digital Media
- MRTS 3525 - Content Development for Digital Media
- PHIL 3450 - Philosophy of Technology
- PHIL 4200 - Science, Technology and Society
- PSCI 3160 - Mass Media in American Politics
- PSCI 3300 - Political Science Research Methods
- PSCI 3310 - Political Theory: Quest for Justice
- PSCI 3320 - Political Theory: The State and its Critics
- PSYC 4600 - History and Systems
- SOCI 3280 - Quantitative Data Analysis
- SOCI 4850 - Applied Research and Careers in Sociology
- SPAN 4150 - Foreign Language Teaching Methods
- TECM 3100 - Visual Technical Communication
- TECM 3200 - Information Design for Electronic Media
- TECM 4300 - Usability and User Experience in Technical Communication
- UCRS 3050 - Effective Communication for Professionals
- THEA 3046 - Computer Aided Drafting and Design for the Entertainment Industry
- THEA 4051 - The Art and Craft of Voice Over
- WLLC 3200 - Chinese Culture and Society
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture

See your academic advisor or www.class.unt.edu/advising for more information and a list of additional approved courses.

Teacher certification

The College of Liberal Arts and Social Sciences encourages students to explore teaching as a career option. The student's departmental advisor or academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with course requirements for certification. Students seeking certification for grades 6–12 or EC–12 must also complete the required 21 hours in upper-level education courses (EDCI 3800, EDCI 3830, EDCI 4060, EDCI 4070, EDCI 4108, EDCI 4118, EDCI 4840) and meet all GPA requirements to apply for state certification. In order to enroll in the first required education courses, the student must make application to the certification program in the College of Education in Matthews Hall, Room 105. All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/. Students interested in post-baccalaureate certification or pursuing a master's degree with certification must make application and meet all admission requirements of the Toulouse School of Graduate Studies.

Teacher certification areas

Secondary
Communication (Speech)
English (English Language Arts and Reading)
History
Social Science (Social Studies)
All-Level (Grades EC–12)
French (not currently admitting new students)
German (not currently admitting new students)
Spanish (not currently admitting new students)
Theatre

Scholarships

Dean's List Scholarship

An endowment fund to supporting undergraduate students enrolled in a degree program within the College of Liberal Arts and Social Sciences who have demonstrated academic promise. Applications are available during February and March.

The Eagles with Mettle Scholarship

A scholarship from Michael P. Murphy to provide for undergraduate College of Liberal Arts and Social Sciences students who qualify as middle income at the University of North Texas.

The Edges and Intersections Scholarship

A scholarship supporting students enrolled in a degree program within the College of Liberal Arts and Social Sciences who have demonstrated academic promise and have an interest in the intersection between art and technology.

The Charles T. and Mildred L. Newell Memorial Scholarship

A scholarship supporting undergraduate students enrolled in a degree program within the College of Liberal Arts and Social Sciences who have demonstrated academic promise.

The Fenton Wayne Robnett Endowed Scholarship in Social Sciences Teaching Certification

An endowment fund supporting undergraduate students enrolled in any social sciences at the University and pursuing a secondary teaching certificate.

The Finseth Hawkins Scholarship

A scholarship for undergraduate students whose gender identity is different than the sex assigned at birth and who are transitioning or have completed transition and are enrolled in the College of Liberal Arts and Social Sciences.

The Voertman-Ardoin Memorial Scholarship

A fund supporting students enrolled in a degree program within the College of Liberal Arts and Social Sciences; preference given to students enrolled in English or Philosophy and to first generation students. Applications are available during February and March.

Voertman-Ardoin Scholarship in Liberal Arts

A fund supporting students enrolled in a degree program within the College of Liberal Arts and Social Sciences.

AM Willis Endowed Scholarship

An endowment fund supporting a scholarship supporting undergraduate and graduate students enrolled in a degree program within the College of Liberal Arts and Social Sciences who have demonstrated academic promise.

Majors

Applied Arts and Sciences, BAAS

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses from that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MGMT 3720 - Organizational Behavior	3 hours	Communication core	3 hours
MGMT 3850 - Foundations of Entrepreneurship	3 hours	Life and Physical Sciences core	3 hours
Communication core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Mathematics core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Life and Physical Sciences core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 1	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 2	3 hours	Occupational Specialization course*	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Government/Political Science core	3 hours	BAAS 3000 - Pathways to Civic Engagement	3 hours
Occupational Specialization course*	3 hours	Government/Political Science core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Language, Philosophy and Culture core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Occupational Specialization course*	3 hours
Elective	3 hours	Entrepreneurship Certificate Concentration course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BAAS 3020 - Fundamentals of Inquiry and Discovery	3 hours	BAAS 4100 - Managing a 21st Century Career	3 hours
Social and Behavioral Sciences core	3 hours	Occupational Specialization course*	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Notes:*Occupational Specialization course: Courses related to a specific occupation, field or subject. Select in consultation with an academic advisor.

Applied Arts and Sciences, BAAS with a concentration in Applied Geography and GIS

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Applied Geography and GIS Concentration

The Applied Geography and GIS concentration centers on how location affects how we interact with people, including in marketing and in health, as well as the application of GIS technology. This option is great for students interested in learning how to effectively reach targeted groups of people.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- GEOG 1200 - Global Societies
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming
- GEOG 4580 - GIS in Health
- GEOG 4590 - Advanced GIS Programming

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Applied Heritage Management

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement

- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Applied Heritage Management concentration

Applied Heritage Management (HM, also called cultural heritage management) is a multidisciplinary field focused on identifying, preserving, and promoting cultural heritage. Cultural heritage is the tangible and intangible assets of societies that are inherited from the past. HM can include disciplines such as (listed in alphabetical order): archaeology, art history, art, cultural anthropology, dance, economics, environmental studies, history, marketing, museum studies, music, political science, tourism studies, among others. Specialists often work with other stakeholders, such as community members and government organizations.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- ARCH 2800 - Archaeological Science
- AMDS 4800 - Internship (Must be related to the student's career goals and one that explicitly provides an opportunity to apply one or more of the skills in this concentration.)
- AMDS 3210 - Public Engagement in Heritage Management
- AMDS 3220 - Heritage Museum Studies
- AMDS 3230 - Heritage Travel
- AMDS 3240 - Heritage Laws and Ethics
- GEOG 3500 - Introduction to Geographic Information Systems

Choose one, 3 hours

- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- CACS 3000 - Applied Professional Communication: Theory and Practice
- CACS 3010 - Applied Project Management: Approaches and Practice
- CACS 3020 - Research Design and Methods: How to Conduct Research
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Note

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Four-year degree plan (example)

The following four-year plan is one example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

	First Year Fall/Spring
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Year 2

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Year 3

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Year 4

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Applied Professional Practices

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Applied Professional Practices Concentrations

The **Applied Professional Practices Concentration** is designed to equip you with practical, in- demand skills for today's fast-changing workplace. Whether you're looking to advance in your current career, change fields, or strengthen the skills you already have, this concentration will help you take your professional abilities to the next level. By completing this concentration, you'll gain valuable tools to stand out in the job market and navigate the challenges of modern professional environments with confidence.

No course substitutions in the Focus Area will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- AMDS 3100 - Applied Finance Essentials
- MGMT 4470 - Leadership
- Must be related to the student's career goals and one that explicitly provides an opportunity to apply one or more of the skills in this concentration.
- AMDS 4800 - Internship
- Choose one:
- CACS 2000 - Applied Professional Communications
- CACS 3000 - Applied Professional Communication: Theory and Practice
- Choose one:
- PRJM 3110 - Principles of Project Management
- CACS 3010 - Applied Project Management: Approaches and Practice
- Choose one:
- PRJM 3130 - Research and Design Methods for Project Management

- CACS 3020 - Research Design and Methods: How to Conduct Research
- Choose one:
- CACS 2030 - Creativity and Complex Problems
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- Choose one:
- CACS 2040 - Team Development
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MGMT 3720 - Organizational Behavior	3 hours	Communication core	3 hours
MGMT 3850 - Foundations of Entrepreneurship	3 hours	Life and Physical Sciences core	3 hours
Communication core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Mathematics core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Life and Physical Sciences core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 1	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 2	3 hours	Occupational Specialization course*	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Government/Political Science core	3 hours	BAAS 3000 - Pathways to Civic Engagement	3 hours
Occupational Specialization course*	3 hours	Government/Political Science core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Language, Philosophy and Culture core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Occupational Specialization course*	3 hours
Elective	3 hours	Entrepreneurship Certificate Concentration course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BAAS 3020 - Fundamentals of Inquiry and Discovery	3 hours	BAAS 4100 - Managing a 21st Century Career	3 hours
Social and Behavioral Sciences core	3 hours	Occupational Specialization course*	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Notes: *Occupational Specialization course: Courses related to a specific occupation, field or subject. Select in consultation with an academic advisor.

Applied Arts and Sciences, BAAS with a concentration in Applied Project Design

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specialization, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Applied Project Design Concentration

The Applied Project Design concentration is tailored for working professionals in a trade seeking a Bachelor's degree for career and personal advancement. The concentration is a specialized area of study integrating the disciplines of project management, informed and creative problem solving, and analytics. Courses are project-based and designed with built-in industry engagement to develop your skills and your professional connections.

This concentration requires seven (7) courses that are 3 credit hours each and three (3) workshops that are 1 credit hour each.

No course substitutions in the concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- ADAR 2020 - Data Design, Analysis and Representation
- ADAR 4020 - Process Optimization and Prescriptive Analysis
- ADSN 4030 - Applied Strategic Design
- APMG 2011 - Project Workshop: Beginner
- APMG 3120 - Problem Analysis
- APMG 3121 - Project Workshop: Intermediate
- APMG 3221 - Project Workshop: Intermediate

Choose one:

- CACS 2000 - Applied Professional Communications
- CACS 3000 - Applied Professional Communication: Theory and Practice

Choose one:

- PRJM 3110 - Principles of Project Management
- CACS 3010 - Applied Project Management: Approaches and Practice

Choose one:

- CACS 2040 - Team Development
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

A total of 36 hours of upper-division work.
At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is one example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring

UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring

UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring

Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring

BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Aviation Operations

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Aviation Operations Concentration

The Aviation Operations concentration is designed for students interested in air transportation issues, especially related to logistics and management.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- LGAV 3100 - Introduction to Aviation Industry
- LGAV 3110 - Aviation Maintenance Programs
- LGAV 3120 - Aviation Safety Systems
- LGAV 3130 - Air Cargo Planning and Control
- LGAV 3140 - Air Passenger Planning and Control
- LGAV 3150 - Transportation Regulation and Trade Compliance
- LSCM 3960 - Logistics and Supply Chain Management
- OPSM 3830 - Operations Management

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Computer Science

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Computer Science Concentration

The Computer Science concentration is geared toward students who have some background with computers but are now interested in higher-level work. This area can provide opportunities for leadership in a computer-related industry, advanced programming and development, and other higher-level thinking related to digital technology.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3550 - Foundations of Cybersecurity

Choose 2 from:

- CSCE 3444 - Software Engineering
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4110 - Algorithms
- CSCE 4115 - Formal Languages, Automata and Computability
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4210 - Game Programming I
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4430 - Programming Languages
- CSCE 4460 - Software Testing and Empirical Methodologies
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4650 - Introduction to Compilation Techniques

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Consumer Insights

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Consumer Insights Concentration

The **Consumer Insights Concentration** examines how to design, deliver, and improve the customer experience across different channels. You will learn about customer touchpoints across platforms and how to create a seamless and positive experience at each one.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- CMHT 3950 - Creating Consumer Experiences
- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 3900 - Branding and Promotion
- Internship (3 SCH) must be related to consumer insights.
- AMDS 4800 - Internship
- Choose one:
- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- CACS 3000 - Applied Professional Communication: Theory and Practice
- CACS 3010 - Applied Project Management: Approaches and Practice
- CACS 3020 - Research Design and Methods: How to Conduct Research
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MGMT 3720 - Organizational Behavior	3 hours	Communication core	3 hours
MGMT 3850 - Foundations of Entrepreneurship	3 hours	Life and Physical Sciences core	3 hours
Communication core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Mathematics core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Life and Physical Sciences core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 1	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 2	3 hours	Occupational Specialization course*	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Government/Political Science core	3 hours	BAAS 3000 - Pathways to Civic Engagement	3 hours
Occupational Specialization course*	3 hours	Government/Political Science core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Language, Philosophy and Culture core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Occupational Specialization course*	3 hours
Elective	3 hours	Entrepreneurship Certificate Concentration course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BAAS 3020 - Fundamentals of Inquiry and Discovery	3 hours	BAAS 4100 - Managing a 21st Century Career	3 hours
Social and Behavioral Sciences core	3 hours	Occupational Specialization course*	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Notes: *Occupational Specialization course: Courses related to a specific occupation, field or subject. Select in consultation with an academic advisor.

Applied Arts and Sciences, BAAS with a concentration in Data Analytics

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Data Analytics Concentration

The Data Analytics concentration is for the student who is analytically minded and wants to contribute to data analysis and data visualization. The courses include computer science, statistics, and use of data for prediction. Data Analytics is a high-demand field, often resulting in high pay.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- ADTA 4130 - Data Analytics and Computational Statistics 1
- ADTA 4230 - Data Analytics and Computational Statistics 2
- ADTA 4240 - Principles of Data Structures, Harvesting and Wrangling
- ADTA 4250 - Principles of Data Visualization for Large Data
- ADTA 4340 - Methods for Discovery and Learning from Data
- CSCE 2100 - Foundations of Computing
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Digital Business and E-commerce

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans

may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Digital Business and E-commerce Concentration

The **Digital Business and E-commerce Concentration** prepares you for careers in e-commerce, digital marketing, and other related fields. This concentration focuses on the strategic, operational, and technical aspects of conducting business online, including internet marketing, e-commerce platforms, and digital technologies.

No course substitutions in the Focus Area will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- DBUS 2080 - E-commerce Platforms
- DBUS 2050 - Introduction to Digital Retailing
- DBUS 3090 - Digital Channel Strategies
- DBUS 4370 - Digital Retailing Analytics Tools and Insights
- Choose two:
- CMHT 3950 - Creating Consumer Experiences
- DBUS 3190 - Digital Retail Marketing Campaigns
- DBUS 3290 - Customer-Centric Retailing with Digital CRM
- DBUS 4000 - Digital Study Tour
- DBUS 4070 - Retail Web Analytics
- DBUS 4090 - Digital Merchandising
- Internship (3 SCH) must be related to digital business and e-commerce.
- AMDS 4800 - Internship
- Choose one:
- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- CACS 3000 - Applied Professional Communication: Theory and Practice
- CACS 3010 - Applied Project Management: Approaches and Practice
- CACS 3020 - Research Design and Methods: How to Conduct Research
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MGMT 3720 - Organizational Behavior	3 hours	Communication core	3 hours
MGMT 3850 - Foundations of Entrepreneurship	3 hours	Life and Physical Sciences core	3 hours
Communication core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Mathematics core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Organizations and Supervision Focus Area Part 1	3 hours
Life and Physical Sciences core	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 1	3 hours	Organizations and Supervision Focus Area Part 2	3 hours
Organizations and Supervision Focus Area Part 2	3 hours	Occupational Specialization course*	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Government/Political Science core	3 hours	BAAS 3000 - Pathways to Civic Engagement	3 hours
Occupational Specialization course*	3 hours	Government/Political Science core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Language, Philosophy and Culture core	3 hours
Entrepreneurship Certificate Concentration course	3 hours	Occupational Specialization course*	3 hours
Elective	3 hours	Entrepreneurship Certificate Concentration course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BAAS 3020 - Fundamentals of Inquiry and Discovery	3 hours	BAAS 4100 - Managing a 21st Century Career	3 hours
Social and Behavioral Sciences core	3 hours	Occupational Specialization course*	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Occupational Specialization course*	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Notes: *Occupational Specialization course: Courses related to a specific occupation, field or subject. Select in consultation with an academic advisor.

Applied Arts and Sciences, BAAS with a concentration in Enology and Brewing

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Enology and Brewing Concentration

The Enology and Brewing concentration provides a multidisciplinary education in the biological principles underlying wine and beer production and distribution, including hands-on experiential learning about viticulture and fermentation. With the support of local industry partners, this program provides the knowledge base for problem-solving and decision-making in commercial beverage production and management.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

Required courses, 21 hours

- HMGT 3900 - Principles of Viticulture
- HMGT 3910 - Principles of Enology
- HMGT 3925 - Principles of Brewing
- HMGT 3940 - Marketing and Distribution of Wine and Craft Beverage
- HMGT 3955 - Applied Business Fundamentals for Wine and Craft Beverage
- AMDS 4800 - Internship (3 hours)
- HMGT 4300 - Survey of Beverages in the Hospitality Industry

A course substitution will be allowed from an approved list of courses for students under the age of 21 or otherwise unable to be in contact with alcoholic beverages.

Required elective choice, 3 hours

Students must choose one of the following electives:

- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- CACS 3000 - Applied Professional Communication: Theory and Practice
- CACS 3010 - Applied Project Management: Approaches and Practice
- CACS 3020 - Research Design and Methods: How to Conduct Research
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

A total of 36 hours of upper-division work.
At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Global Societies and GIS

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Global Sciences and GIS Concentration

The Global Sciences & GIS concentration includes both practical technical knowledge about how GIS systems work as well as an overview of spatial/cultural differences in several major areas of the world. This option is great for students interested in travel, tourism, sociology, international relations, and other issues associated with how societies interact with one another and with their environments. Fulfills partial requirements towards the UNT GIS Undergraduate Certificate (one additional course will be needed to complete the certificate).

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- GEOG 1200 - Global Societies
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 3760 - Geography of China: Environment and Society
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming
- GEOG 4590 - Advanced GIS Programming

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring

UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring

UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring

Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring

BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Homeland Security

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement

- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Homeland Security Concentration

The Homeland Security concentration is geared toward students interested in law enforcement and knowledge of threats from radical groups. This is a great option for current or former police officers.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- CJUS 2300 - Police Systems
- CJUS 3340 - Computer Crime
- CJUS 4330 - Domestic and International Terrorism
- CJUS 4360 - Criminal Investigation
- EADP 3010 - Principles of Emergency Management
- EADP 4040 - International Disasters
- EADP 4090 - Terrorism and Emergency Management
- EADP 3xxx/4xxx Elective chosen in consultation with advisor

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Hospitality Services

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Hospitality Services Concentration

The Hospitality Services concentration is designed for students with a background in culinary studies or related field. This area builds on technical, hands-on coursework with an emphasis on management as well as knowledge of restaurants and tourism.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- EDEM 3240 - Event Service Essentials
- HMGT 3260 - Resort and Club Management
- HMGT 3700 - Hotel Operations
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4150 - Casino Management
- HMGT 4300 - Survey of Beverages in the Hospitality Industry

Choose 2 from:

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- DBUS 3090 - Digital Channel Strategies

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring

UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring

UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring

Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring

BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Industrial Distribution

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complimentary to the student's career plans.

Industrial Distribution Concentration

The Industrial Distribution concentration is a hands-on multidisciplinary program where students learn to apply the fundamentals of industrial design, manufacturing technology, and supply chain management to the creation and distribution of industrial and commercial products.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- ENGR 3000 - Foundations of Manufacturing
- INDS 3010 - Digital Trends in Industrial Distribution
- INDS 3020 - Industrial Channel Selling
- INDS 3030 - Industrial Computer Science and Informatics
- INDS 3110 - Industrial Chemistry
- INDS 3150 - Industrial Cost Management
- INDS 4040 - Industrial Innovation and Ideation
- LSCM 3960 - Logistics and Supply Chain Management

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

A total of 36 hours of upper-division work.
At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Information Technology

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Information Technology Concentration

The Information Technology concentration is designed for students with a practical background in network administration or similar area who is interested in going more in-depth into theory, programming, and general computer programming. The upper-level options in this area are flexible to allow for an emphasis on a particular area of IT administration to prepare for a career as an IT manager.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures

Choose 4 from:

- CSCE 3055 - IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming
- CSCE 3605 - Systems Administration
- CSCE 4010 - Social Issues in Computing
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4355 - Database Administration
- CSCE 4535 - Introduction to Network Administration

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring

UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring

UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring

Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring

BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Leadership Development

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery

- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Leadership Development Concentration

The Leadership Development concentration centers on the skills and knowledge needed to be an effective leader. Topics include those such as decision making, project management, communication, accountability, and motivation. This area is idea for students interested in managing people and teams.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- LTEC 3010 - Personal Development
- LTEC 4000 - Principles of Training and Development
- LTEC 4040 - Organizational Development and Performance Improvement
- LTEC 4050 - Entrepreneurship and Performance Improvement
- LTEC 4060 - Project Management and Applied Technology Performance Improvement
- LTEC 4070 - Principles of Leadership, Empowerment and Team Building
- LTEC 4121 - Technical Presentation Skills
- LTEC 4470 - Human Relations in Business, Education and Industry

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Logistical Operations

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Logistical Operations Concentration

The Logistical Operations concentration emphasizes logistics basics as well as theory and higher-level decision making in the field. This area is great for students with a military background, especially those with some logistics familiarity.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- LGAV 3130 - Air Cargo Planning and Control
- LGAV 3150 - Transportation Regulation and Trade Compliance
- LSCM 3960 - Logistics and Supply Chain Management
- LSCM 4360 - Global Alliances and International Supply Chain Management
- LSCM 4530 - E-Logistics in Supply Chain Management
- LSCM 4560 - Business Transportation Management

Choose 1 from:

- LSCM 4510 - Logistics and Business Analysis
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems

Choose 1 from:

- OPSM 3830 - Operations Management
- PRCH 4810 - Purchasing and Materials Management

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Natural Hazards and Geography GIS

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Natural Hazards and Geography GIS Concentration

The Natural Hazards and Geography GIS concentration links weather and natural events with a knowledge of geography and practical application of GIS technology. This area is great for students with an EMS technical background, police officers, or those who want to be involved in government or non-profit organizations providing emergency relief. Fulfills requirements for the UNT GIS Undergraduate Certificate.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 3800 - Weather and Climate
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming
- GEOG 4590 - Advanced GIS Programming
- GEOL 3010 - Environmental Geology
- GEOL 3030 - Earthquakes and Volcanoes

Choose 1 from:

- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

A total of 36 hours of upper-division work.

At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Organizations and Supervision

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery

- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Organizations and Supervision Concentration

The Organizations & Supervision concentration is a general management concentration combining courses from business with other colleges. Students can learn not just about management in the for-profit sector, but also in other types of organizations. This option is a great fit for any student who is preparing to move to a position with managerial responsibilities.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors

Choose 3 from:

- MGMT 3330 - Communicating in Business
- MGMT 3820 - Management Concepts
- MGMT 3850 - Foundations of Entrepreneurship
- MGMT 3860 - Human Resource Management
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4470 - Leadership
- MGMT 4660 - International Management Perspectives

Choose 4 from:

- AMDS 4800 - Internship
- BEHV 3300 - Organizational Behavior Management
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- EDEM 3240 - Event Service Essentials
- HMGT 3260 - Resort and Club Management
- HMGT 4150 - Casino Management
- PADM 3020 - Public Management
- PADM 4000 - Mediation
- RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations
- RESM 4050 - Management of Recreation, Event and Sport Organizations
- RESM 4070 - Human Resource Management in Recreation, Event, and Sport Organizations
- RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring

Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring

BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Public Health Education and Practice

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Public Health Education and Practice Concentration

The Public Health Education and Practice concentration centers on how governments and societies handle health situations such as a pandemic. Content includes the basics of public health concepts, including epidemiology as well as social justice issues related to access to healthcare. This area is great for students with an associate's RN and who are interested in earning a bachelor's degree. This is also a great option for police and EMS professionals.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 3020 - Community Health Education
- PUBH 3025 - Environmental Health
- PUBH 3030 - Global Public Health
- PUBH 3040 - Epidemiological Concepts and Methods for Public Health
- PUBH 4015 - Ethics in Public Health

Choose 1 from:

- PUBH 4020 - Biostatistics
- PUBH 4050 - Public Health and Health Policy
- PUBH 4060 - Public Health Management and Leadership
- PUBH 4070 - Public Health Informatics

Choose 1 from:

- COMM 3220 - Health Communication
- EADP 3010 - Principles of Emergency Management
- GEOG 4560 - Introduction to Python Programming
- GEOG 4580 - GIS in Health
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers
- PHIL 3100 - Aesthetics

- PHIL 3440 - Bioethics
- PHIL 4200 - Science, Technology and Society
- SOCI 3120 - Sociology of Health and Illness
- SOWK 4430 - Applied Social Welfare Policy

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Public Safety

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Public Safety Concentration

The Public Safety concentration emphasizes criminal justice issues and how our society handles balancing social safety with individual needs and desires. This area is a great option for current or former first responders.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- CJUS 2300 - Police Systems
- CJUS 2400 - Correctional Systems
- CJUS 2600 - Judicial and Legal Systems
- CJUS 3340 - Computer Crime
- CJUS 3600 - Criminology
- CJUS 3630 - Drugs, Crime and Society
- CJUS 4330 - Domestic and International Terrorism
- CJUS 4600 - What is Justice?

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Recreation and Sport Leadership

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Recreation and Sport Leadership Concentration

The Recreation and Sport Leadership concentration centers on sports for the social good (e.g., youth sports and community impact of health and sports). This area is a great option for transfer athletes or anyone who is interested in how recreation impacts lives.

No course substitutions in the Concentration will be made without the written consent of the BAAS Program Director or DMI Department Chair.

- RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations
- RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations
- RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations
- RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations
- RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations
- RESM 4190 - Finance in Recreation, Event, and Sport Organizations
- RESM 4200 - Entrepreneurship in Recreation, Event, and Sport Organizations
- RESM 4250 - Marketing in Recreation, Event, and Sport Organizations

Minor

None required.

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent required for students wishing to apply up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

First Year Fall/Spring	
UNT Core: Core Option Course	UNT Core: Core Option Course
UNT Core: Life & Physical Sciences	UNT Core: Life & Physical Sciences
UNT Core: Mathematics	UNT Core: Language, Philosophy & Culture
ENGL 1310	ENGL 1320 or TECM 2700
PSCI 2305	PSCI 2306

Second Year Fall/Spring	
UNT Core: American History	UNT Core: American History
UNT Core: Creative Arts	UNT Core: Social & Behavioral Sciences
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course
Occupational Area Course	Occupational Area Course

Third Year Fall/Spring	
Occupational Area Course	BAAS 3000
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
1st Professional Development Specialization Course	2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course
Advanced 1st Professional Development Specialization Course	Advanced 2nd Professional Development Specialization Course

Fourth Year Fall/Spring	
BAAS 3020	BAAS 4100
3rd Professional Development Specialization Course	3rd Professional Development Specialization Course
Advanced 3rd Professional Development Specialization Course	Advanced 3rd Professional Development Specialization Course
Advanced Elective	Advanced Elective
Elective	Advanced Elective

Applied Arts and Sciences, BAAS with a concentration in Residential Property Management

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Applied and Collaborative Studies requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying Courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement

- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 36 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Residential Property Management (RPM) Concentration

The **Residential Property Management (RPM) Concentration** prepares you to make investment and management decisions. You'll explore aspects of real estate transactions, from residential to commercial to international, and learn about property appraisal, finance and management.

No course substitutions in the Focus Area will be made without the written consent of the BAAS Program Director or DMI Department Chair.

Required courses, 24 credit hours

- BLAW 4790 - Property Management Law
- REAL 2100 - Principles of Real Estate
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management
- AMDS 4800 - Internship (Must be an internship related to residential property management.)

Choose one, 3 hours

- BLAW 4770 - Real Estate Law and Contracts
- REAL 4000 - Real Estate Finance
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation

Choose one, 3 hours

- MGMT 3820 - Management Concepts
- MGMT 3860 - Human Resource Management
- MGMT 4470 - Leadership
- MGMT 4860 - Organizational Design and Change
- MKTG 3720 - Digital Marketing Fundamentals
- MKTG 4120 - Consumer Behavior

Choose one, 3 hours

- CACS 2000 - Applied Professional Communications
- PRJM 3110 - Principles of Project Management
- PRJM 3130 - Research and Design Methods for Project Management
- CACS 2030 - Creativity and Complex Problems
- CACS 2040 - Team Development
- CACS 3000 - Applied Professional Communication: Theory and Practice
- CACS 3010 - Applied Project Management: Approaches and Practice
- CACS 3020 - Research Design and Methods: How to Conduct Research
- CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

- A total of 36 hours of upper-division work.
- At least 24 hours of upper-division work in residence.

Note

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Applied Arts and Sciences, BAAS with a concentration in Workforce and Technical Administration

The 120-hour multidisciplinary degree program is specifically designed for nontraditional students who wish to earn a bachelor's degree. This unique program accepts credits earned from military training, from an Associate of Applied Science degree, or from other university credits. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Applied Arts and Sciences degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Students may not seek a BAAS as a post-baccalaureate degree, nor may the BAAS be used as a second major.

Major requirements

Occupational Area, 21 hours

Comprised of courses related to a specific occupation, field or subject. The occupational area often consists of field-specific course work completed for an Associate of Applied Science (AAS) degree at a community college. Active-duty military or veterans may receive credit for technical or other formal training courses under this component of the degree plan. Other students who have not completed an occupational area through courses taken in a community college or in the military may create one by selecting a primary area of study, in consultation with an advisor.

Unifying courses, 9 hours

Three specific courses that help students sharpen their ability to communicate, analyze information and network effectively. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

- BAAS 3000 - Pathways to Civic Engagement
- BAAS 3020 - Fundamentals of Inquiry and Discovery
- BAAS 4100 - Managing a 21st Century Career

Professional development specializations, 12 hours

Consists of two or three separate specializations, each of which will consist of a minimum of 12 credit hours that serve to enhance the skills a student has acquired through prior education or are complementary to the student's career plans.

Workforce and Technical Administration Concentration

The Workforce and Technical Administration concentration is tailored for working professionals in a trade seeking a Bachelor's degree for career and personal advancement. The concentration is a specialized area of study integrating the disciplines of project management, learning technology, industrial distribution, and a project-based learning curriculum to create a wholistic learning experience for students that will prepare them to understand and investigate real world business problems and to lead and collaborate with others effectively.

No course substitutions in the Concentration will be made without the written consent of the director of the Applied Arts and Sciences program or the DMI department chair.

- AMDS 3100 - Applied Finance Essentials
- APMG 3120 - Problem Analysis
- INDS 4040 - Industrial Innovation and Ideation
- LTEC 4040 - Organizational Development and Performance Improvement
- MGMT 3880 - Business Ethics and Social Responsibility
- PADM 3100 - Workplace Conflict

Choose one, 3 hours

- CACS 2000 - Applied Professional Communications
- CACS 3000 - Applied Professional Communication: Theory and Practice

Choose one, 3 hours

- CACS 2040 - Team Development
- CACS 3040 - Applied Team Development: Research to Practice

Electives

Any UNT or transfer courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 36 hours of advanced-level course work.

Other requirements

A total of 36 hours of upper-division work.

At least 24 hours of upper-division work in residence.

Notes

A lower-level transfer course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement for advanced hours.

Departmental consent is required for students wishing to apply for up to 6 credit hours of university-approved Prior Learning Credit for non-traditional learning experiences in transfer to satisfy degree requirements.

Game Studies and Design, BS

A Game Studies and Design BS provides students with the knowledge and skills to follow a path related to games in the 21st century. As an interdisciplinary major, students experience hands-on experience making games using industry tools and processes as well as a social and theoretical education in matters related to game studies. This breadth enables Game Studies and Design majors to work toward their goals, whether it is game design and development, game criticism and journalism, or a future studying how games affect players and our culture.

The Concentration in Narrative Design within the Game Studies and Design major specifically prepares students for work in narrative development, script writing, social and cultural analysis, genre studies, creative writing, and more. Students develop narratives in collaborative environments to replicate studio work, engage in workshops and critiques, and study the importance of representation in game environments.

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Students must complete 48 hours in the major, including 30 hours of core courses and 18 hours of a concentration in Narrative Design.

Required courses, 30 hours

Complete the following:

- CSCE 2210 - Introduction to Visual Scripting for Games
- ENGL 3500 - Beginning Game Writing Workshop: Storytelling Through Narrative Design
- GMSD 1800 - Survey of Game Studies and Design
- GMSD 3800 - Game Production Pipeline
- GMSD 4800 - Capstone 1 - Game Studio 1: Ideation and Prototyping
- GMSD 4801 - Capstone 2 - Game Studio 2: Iteration and Refinement
- MRTS 2300 - Digital Asset Creation and Animation
- MRTS 3250 - Introduction to Game Design

- ENGL 3225 - Games, Play, and Stories

  or

- MRTS 3630 - Game Studies: Players, Culture and Industry

- MRTS 4660 - Gender and Gaming

  or

- PHIL 4200 - Science, Technology and Society

Narrative Design concentration, 18 hours

Six (6) courses from the list below:

Required courses, 6 hours

- MRTS 3260 - Introduction to Level Design
- ENGL 4140 - Advanced Narrative Design for Gaming

Complete 12 hours of Narrative Design support courses from the following:

- COMM 3260 - Storytelling, Narrative and Everyday Life
- ENGL 3140 - Beginning Fiction Writing
- ENGL 4145 - Worldbuilding and Mythopoesis
- ENGL 4665 - Studies in Science Fiction
- ENGL 4680 - Game Narratives as Literature
- MRTS 4810 - Directing Narrative Media

Minor

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Integrative Studies, BA

A Bachelor of Arts with a major in integrative studies provides the flexibility to enroll in classes that align with your individual interests and enhance your career objectives. It gives you the opportunity to create a tailored major.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in integrative studies.

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog.

Major requirements

The 36-hour integrative studies major is comprised of 12 hours in each of three fields chosen by the student and approved by his or her academic counselor. A minimum of 6 advanced hours is required in each field.

a. At least one field must be chosen from among those offered in the College of Liberal Arts and Social Sciences.

b. If more than one field is chosen from outside the College of Liberal Arts and Social Sciences, both may not be selected from the same school or college.

c. No more than one field may be selected from a single department within the College of Liberal Arts and Social Sciences.

d. A minimum grade of C is required in each course counting toward the major.

Minor

None required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic counselor in the College of Liberal Arts and Social Sciences.

Additional information

For more information concerning this major, including how previously earned college credit will apply toward the degree, contact an academic counselor in the Dean's Office for Undergraduates and Student Advising, College of Liberal Arts and Social Sciences, GAB, Room 220.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Mathematics core	3 hours	Component Area Option A core	3 hours
Social and Behavioral Sciences core	3 hours	Creative Arts core	3 hours
CLASS Foreign Language-elementary	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Life and Physical Sciences core	3 hours	CLASS Foreign Language-intermediate	3 hours
CLASS Foreign Language-intermediate	3 hours	Major Field	3 hours
Major Field	3 hours	Major Field	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Component Area Option B core	3 hours	Major Field	3 hours
Major Field	3 hours	Major Field	3 hours
Major Field	3 hours	Elective-advanced	3 hours
Major Field	3 hours	Elective-advanced	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Major Field	3 hours	Major Field	3 hours
Major Field	3 hours	Elective	3 hours
Major Field	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Integrative Studies, BS

A Bachelor of Science with a major in integrative studies provides the flexibility to enroll in classes that align with your individual interests and enhance your career objectives. It gives you the opportunity to create a tailored major including communication and global perspectives necessary to be competitive in the workforce.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in integrative studies.

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog.

Major requirements

The 36-hour integrative studies major is comprised of 12 hours in each of three fields chosen by the student and approved by his or her academic counselor. A minimum of 9 advanced hours is required in each field.

a. At least one field must be chosen from among those offered in the College of Liberal Arts and Social Sciences.

b. If more than one field is chosen from outside the College of Liberal Arts and Social Sciences, both may not be selected from the same school or college.

c. No more than one field may be selected from a single department within the College of Liberal Arts and Social Sciences.

d. A minimum grade of C is required in each course counting toward the major.

Other course requirements

In addition to 36 hours in the major, students must complete two courses (6 hours) from:

- Group 1: Technical, professional and scientific communication. An advanced level course that will significantly enhance the student's ability to communicate effectively in his or her field, with emphasis on practical written and verbal skills.
- Group 2: Global leadership and intercultural perspectives. An advanced level course that will emphasize large-scale connectivity by broadening the student's cultural and global leadership experience and understanding of global challenges and issues.

Courses must be chosen from a predetermined list, in consultation with an academic counselor (GAB 220) for inclusion in the student's degree audit. Note: With counselor approval, foreign language (2040 and 2050) may be substituted for this requirement.

Minor

None required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree.

Additional information

For more information concerning this major, including how previously earned college credit will apply toward the degree, contact an academic counselor in the Dean's Office for Undergraduates and Student Advising, College of Liberal Arts and Social Sciences, GAB, Room 220.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Life and Physical Sciences core	3 hours	Component Area Option A core	3 hours
Mathematics core	3 hours	Creative Arts core	3 hours
Social and Behavioral Sciences core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Component Area Option B core	3 hours	Major Field	3 hours
Language, Philosophy and Culture core	3 hours	Major Field	3 hours
Major Field	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Major Field	3 hours	Major Field	3 hours
Major Field	3 hours	Major Field	3 hours
Other Course Requirement selection*	3 hours	Major Field	3 hours
Elective	3 hours	Other Course Requirement selection*	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Major Field	3 hours	Major Field	3 hours
Major Field	3 hours	Elective	3 hours
Major Field	3 hours	Elective-advanced	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

*See “Other course requirements” above for more information.

Social Science (Social Studies teacher certification), BS

A Bachelor of Science with a major in social science (social studies secondary teacher certification) prepares you for a career in public or private education. Additionally, you will possess a greater understanding of cultural diversity and global issues, as well as communication and digital skills necessary to be competitive in the workforce.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in social science (social studies teacher certification).

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in University Core Curriculum in the Degree and Program Requirements section of this catalog.

Major requirements, 60 hours

The Bachelor of Science with a major in social science and a composite teaching field in social studies requires:

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics

- ECON 4100 - Comparative Economic Systems

  or
- ECON 4850 - International Trade

- ECON 3050 - The Economics of Consumption

  or
- FIPL 2770 - Show Me the Money - Lessons in Money Education

- GEOG 1200 - Global Societies
- GEOG 2170 - Culture, Environment and Society
- 3 hours of advanced Group B: Human Geography (see Department of Geography and the Environment section of this catalog for list of courses)
- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century
- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865
- HIST 3700 - Texas History
- 3 hours of advanced Geographic Area: United States (see History, BA for list of courses)
- 3 hours of advanced Geographic Area: Europe (see History, BA for list of courses)
- 3 hours of advanced Geographic Area: Africa, Asia, Latin America and the Middle East history (see History, BA for list of courses)
- PSCI 2305 - US Political Behavior and Policy
- PSCI 2306 - US and Texas Constitutions and Institutions
- PSYC 1630 - General Psychology I
- SOCI 1510 - Introduction to Sociology

3 hours of advanced political science selected from

- PSCI 3110 - The Legislative Process
- PSCI 3160 - Mass Media in American Politics
- PSCI 3200 - The American Legal System
- PSCI 3210 - The U.S. Supreme Court
- PSCI 3600 - Governments and Politics around the World
- PSCI 4100 - Political Parties
- PSCI 4140 - The Presidency

Other course requirements

- UCRS 4700 - Social Studies Teaching Methods

Other requirements

Students must also complete the required 21 hours in upper-level education courses and meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), www.tea.state.tx.gov.

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Minor

None required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Social Science, BS

After earning a Bachelor of Science with a major in social science, you will have a greater understanding of social systems, cultural diversity and individual responsibility. You will develop communication and professional skills necessary to be competitive in the workforce.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in social science.

Hours required and general/college requirements

Students must complete a minimum of 120 semester hours, of which 42 must be advanced, and fulfill all degree requirements for the Bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog.

Major requirements

An interdisciplinary major in social science for the Bachelor of Science degree requires 48 semester hours in the social sciences, 27 of which must be advanced. The primary field must include 18 hours in one field, of which 12 hours must be advanced. The remaining 30 hours must be taken in at least two other of these fields. Fields must be chosen from anthropology, economics, geography (human geography only), history, philosophy, political science, psychology, social work or sociology.

MATH 1680 is the recommended course to satisfy the core mathematics requirement.

Other course requirements

In addition to the 48 hours in the major, students must complete two courses (6 hours) from:

- Group 1: Professional communication
- Group 2: Research and analytical methods

These courses must be chosen from a predetermined list, in consultation with an academic counselor (GAB 220) for inclusion in the student's degree audit.

Note: With counselor approval, foreign language (2040 and 2050) may be substituted for this requirement.

Minor/Academic certificate

Recommended but not required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Students are advised to give careful consideration to their career goals when selecting electives, by considering minors and undergraduate academic certificates. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic counselor in the College of Liberal Arts and Social Sciences.

Additional information

For more information concerning this major, contact an academic counselor in the Dean's Office for Undergraduates and Student Advising, College of Liberal Arts and Social Sciences GAB, Room 220.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Mathematics core (MATH 1680 recommended)	3 hours	Component Area Option A core	3 hours
Social and Behavioral Sciences core	3 hours	Life and Physical Sciences core	3 hours
Social Science Combined Field Selection**	3 hours	Social Science Combined Field Selection**	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Language, Philosophy and Culture core	3 hours	Component Area Option B core	3 hours
Life and Physical Sciences core	3 hours	Creative Arts core	3 hours
Social Science Primary Field Selection*	3 hours	Social Science Primary Field Selection*	3 hours
Social Science Combined Field Selection**	3 hours	Social Science Combined Field Selection**	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Social Science Combined Field Selection**	3 hours	Social Science Combined Field Selection**	3 hours
Social Science Combined Field Selection**	3 hours	Social Science Combined Field Selection**	3 hours
Other course requirements-advanced***	3 hours	Social Science Primary Field Selection-advanced**	3 hours
Elective-advanced	3 hours	Other course requirements-advanced***	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Social Science Primary Field Selection-advanced*	3 hours	Social Science Primary Field Selection-advanced*	3 hours
Social Science Combined Field Selection**	3 hours	Social Science Primary Field Selection-advanced*	3 hours
Social Science Combined Field Selection**	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Notes:

*Social Science Primary Field Selection: 18 hours from one chosen field, of which 12 hours must be advanced. See "Major Requirements" above for field selection options.

**Social Science Combined Field Selection: 30 hours from at least two other fields. See "Major Requirements" above for field selection options.

***See academic counselor for course options.

Minors

Social Science minor

A minor in social science requires 6 hours in one department and 12 hours in another department, including 6 advanced hours. Courses may be chosen from the following areas: anthropology, economics, geography (human geography only), history, philosophy, political science, psychology, social work and sociology.

Undergraduate Academic Certificates

Applied Heritage Management certificate

Required Hours (12 sch): Applied Heritage Management (HM, also called cultural heritage management) is a multidisciplinary field focused on identifying, preserving, and promoting cultural heritage. Cultural heritage is the tangible and intangible assets of societies that are inherited from the past. HM can include disciplines such as (listed in alphabetical order): archaeology, art history, art, cultural anthropology, dance, economics, environmental studies, history, marketing, museum studies, music, political science, tourism studies, among others. Specialists often work with other stakeholders, such as community members and government organizations.

Required courses, 12 hours

- AMDS 3210 - Public Engagement in Heritage Management
- AMDS 3220 - Heritage Museum Studies
- AMDS 3230 - Heritage Travel
- AMDS 3240 - Heritage Laws and Ethics

Digital Humanities certificate

Digital Humanities is a collaborative and interdisciplinary field which applies new technologies to answer historical, cultural, and literary questions while also analyzing the impact of technology on society. The Digital Humanities Certificate introduces students to the ideas, materials, and tools used in Digital Humanities through both topical and technical courses. By engaging in hands-on learning, students gain practical skills with digital tools and methods such as digital archives, text mining, data visualization, digital storytelling, network analysis, podcasting, digital mapping, 3D modeling, virtual reality and AI. Students also learn how to combine humanistic practices of close reading, critique, and analysis with the application of digital methods to address complex social, cultural and historical issues. This unique blend of training produces humanists with practical digital skills that are increasingly in demand by employers, and technicians who are better able to evaluate resources, think critically, develop arguments and communicate about their work and world.

Requirements

The certificate requires 15 credit hours, including 3 hours in foundations, 9 hours in electives, and 3 hours of applied practice.

Foundations, 3 hours

- HUMA 3010 - Introduction to Digital Humanities

Electives, 9 hours

3 hours must be taken from each category below.

A. Digital Skills and Methods

- COMM 3360 - Digital Storytelling and Performance
- CSCE 1010 - Discovering Computer Science
- DSCI 2710 - Data Analysis with Spreadsheets
- GEOG 3500 - Introduction to Geographic Information Systems
- HIST 3051 - Digital Public History
- HIST 3052 - Mapping Slavery and Freedom
- INFO 4709 - Data Visualization
- INFO 4730 - Digital Curation and Preservation
- LTEC 4210 - Introduction to Video Technology

B. Topical/Social-Cultural

- ENGL 4140 - Advanced Narrative Design for Gaming
- HIST 3010 - History through Video Games
- HIST 4224 - History of the Book
- MRTS 3620 - Digital Media and Society
- PHIL 4200 - Science, Technology and Society
- TECM 1600 - AI in Professional Settings

C. Elective Choice

- One course (3 hours) from category A or B
- Other courses upon approval of the Digital Humanities Certificate Advisor

Applied Practice, 3 hours

Select one course from the following:

- HIST 4520 - Doing Digital History
- HUMA 4920 - Applied Humanities Internship

Leadership Studies certificate

Students may receive a certificate in leadership studies by successfully completing the following courses:

Certificate requirements, 12 hours

Core course, 3 hours

- UCRS 3600 - Leadership in Practice

Ethics, 3 hours

Selected from:

- MGMT 3880 - Business Ethics and Social Responsibility
- PHIL 1400 - Ethics and Society
- PHIL 4700 - Environmental Philosophy
- PSCI 4360 - International Ethics
- (other courses as approved by program advisor)

Global issues, 3 hours

Selected from:

- EADP 4040 - International Disasters
- INST 4851 - International Security
- INST 4852 - Critical Issues in Global Economics Senior Seminar
- INST 4853 - Global Development: Issues and Challenges
- MGMT 4660 - International Management Perspectives
- MKTG 4280 - Global Marketing Issues and Practice
- PADM 4050 - Negotiation
- PSCI 3500 - Human Security
- PSCI 3810 - International Relations
- PSCI 4520 - International Human Rights
- PSCI 4800 - The Politics of International Organization
- PSCI 4820 - Contemporary International Problems
- PSCI 4821 - International Conflict
- SOCI 4750 - World Population Trends and Problems
- UCRS 4500 - Global Leadership through Service

Leadership in discipline, 3 hours

3 hours selected in consultation with advisor.

Experiential component

In order to complete the leadership certificate, students are required to complete an experiential component that allows them to put their learning and skill development from previous courses into practice. The experience must allow the student to actively engage in organizational/group leadership experiences, civic engagement or career development and must occur over a period of no less than three consecutive months. Experiences should be approved in advance by the program director. Upon completion of the experience, a reflection paper connecting the experiences and course learning must be submitted to the program director for review https://www.unt.edu/academics/programs/leadership-studies-certificate.html.

UNT Peace Corps Prep Certificate

UNT's Peace Corps Prep certificate prepares students for international development fieldwork and potential Peace Corps service in one of the following Peace Corps work sectors:

- Education
- Health
- Environment
- Agriculture
- Youth in Development, or
- Community Economic Development.

To accomplish this, students will build four core competencies:

1. Training and experience in a work sector
2. Intercultural competence
3. Professional and leadership development, and
4. Foreign language skills (optional).

Students create an ePortfolio to synthesize and reflect upon their UNT Peace Corps Prep experiences.

Requirements, 18 hours

1. Nine advanced semester credit hours aligned with Peace Corps Training and Experience work sector in consultation with the advisor.
2. Nine hours of Intercultural Competence courses: 3 hours from the list of Core Intercultural Competence courses and 6 additional hours from the list of Elective Intercultural Competence courses. Additional courses may be approved in consultation with the advisor.
3. Professional and Leadership Development: Resume, Interview Preparation, and participation in a "significant" leadership experience (coordinated in conjunction with the Career Center & Center for Leadership and Service).
4. At least 50 hours of hands-on volunteer/service learning/internship experience in same work sector (coordinated in conjunction with the Career Center & Center for Leadership and Service). Students are encouraged to participate in a study abroad program or international volunteer work to meet some of these requirements.

Intercultural Competence, 9 hours

Core Intercultural Competence

3 hours from:

- ANTH 2300 - Culture and Society
- COMM 3620 - Intercultural Communication
- COUN 2620 - Diversity and Cultural Awareness
- PSYC 4030 - Multicultural Psychology

Elective Intercultural Competence courses

6 additional hours from:

- ANTH 1150 - World Cultures Through Film
- ANTH 2300 - Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3120 - Indigenous Cultures of the Southwest
- ANTH 3130 - African-American Anthropology
- ANTH 3210 - Meso America
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East

- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4300 - Migrants and Refugees
- COMM 3620 - Intercultural Communication
- COUN 2620 - Diversity and Cultural Awareness
- GEOG 1200 - Global Societies
- GEOG 2170 - Culture, Environment and Society
- HDFS 3153 - The Impact of Culture on Individuals and Families
- INST 2100 - Introduction to International Studies
- MUET 3030 - Music Cultures of the World
- PHIL 2070 - World Religions
- PHIL 3620 - Hinduism, Jainism, Sikhism
- PHIL 3680 - Buddhism, Daoism, Shintoism
- PHIL 4650 - Philosophy of Water
- PSCI 3500 - Human Security
- PSYC 4030 - Multicultural Psychology
- PSYC 4300 - Biopsychosocial Challenges Related to Sexually Transmitted Infections
- SOCI 4160 - Developing Societies
- SOCI 4750 - World Population Trends and Problems
- SOWK 4540 - Human Diversity for the Helping Professions
- WGST 2100 - Introduction to Women's and Gender Studies

Interdisciplinary majors and minors

- Conflict and Human Security minor
- Environmental studies minor
- Game Studies and Design, BS
- Geographic Information Systems and Computer Science, BS
- Geography with a concentration in Earth Systems, BS
- Geography with a concentration in Environmental Studies, BS
- Integrative Studies, BA
- Integrative Studies, BS
- International Studies with a concentration in Business and Economics, BA
- International Studies with a concentration in Global Conflict, BA
- International Studies with a concentration in Global Perspectives, BA
- International Studies with a concentration in Human Security, BA
- International Studies minor
- Jewish Studies minor
- Legal Studies minor
- Religious Studies minor
- Social Science, BS
- Social Science (Social Studies teacher certification), BS
- Social Science minor

Department of Anthropology

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Doug Henry, Chair

Faculty

The Department of Anthropology offers a Bachelor of Arts with a major in anthropology for those who wish to pursue a career in the discipline of anthropology, for those simply interested in the human condition and for those who may wish to combine the study of anthropology with another discipline.

We also offer a number of courses which satisfy a breadth of requirements for other majors. Anthropology's focus on understanding cultural diversity makes it a useful subject for people planning careers in areas such as education, business, medicine, and law.

Anthropology majors at UNT receive a broad range of training in theory and methodology: ethnography, in-depth interviewing, survey research and quantitative analysis. Courses require intensive writing, and all students are encouraged to become proficient in a second language. UNT places emphasis on training students in the application of anthropological knowledge in the private, public and not-for-profit sectors, in local, regional and international arenas. Students are encouraged to travel abroad and often get hands-on experience while working in UNT's international field schools.

Majors

Anthropology, BA

A Bachelor of Arts with a major in anthropology provides the skills needed to work in a world transformed by global economic forces, shifting political borders, national conflicts, ethnic division, food and environmental crises, natural disasters, genocide and public health issues.

The following requirements must be satisfied for a Bachelor of Arts with a major in anthropology.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Major of 39 hours in anthropology, including 15 hours of required anthropology courses:

- ANTH 1010 - Introduction to Anthropology
- ANTH 2300 - Culture and Society
- ANTH 4000 - Applied Anthropology
- ANTH 4011 - Anthropological Field Methods
- ANTH 4021 - Development of Anthropological Thought

Elective anthropology requirements, 24 hours

A minimum of 6 hours must be taken from 3000-level ANTH courses, 6 hours from 4000-level ANTH courses, 6 additional hours at the advanced level (either 3000- or 4000-level), and 6 hours of ANTH courses from any level.

Note: ARCH 2800 may be substituted for one lower-level elective anthropology course.

Minor

No minor is required.

Electives

See individual degree plan.

Other requirements

- Students must pass all courses required for the anthropology major with a C or higher;
- Transfer course work to be substituted for required anthropology courses must be approved by a student's faculty advisor during the degree plan process;
- Credit substitution requests must be pre-approved prior to a student enrolling in the course.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ANTH 1010 - Introduction to Anthropology	3 hours	ANTH 2300 - Culture and Society	3 hours
ENGL 1310 - First-Year Writing I	3 hours	ANTH 2400 - AnthroPop: Symbolic Anthropology and the Artistry of Popular Culture	3 hours
HIST 2610 - United States History to 1865	3 hours	ENGL 1320 - First-Year Writing II	3 hours
LANG 1010 - Elementary Language	3 hours	HIST 2620 - United States History Since 1865	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	LANG 1020 - Elementary Language	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
LANG 2040 - Intermediate Language	3 hours	LANG 2050 - Intermediate Language	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Anthropology 3000 Level selection	3 hours	Anthropology Any Level selection	3 hours
Anthropology Any Level selection	3 hours	Anthropology 3000 Level selection	3 hours
Life & Physical Science Core	3 hours	Life & Physical Science Core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ANTH 4000 - Applied Anthropology	3 hours	ANTH 4021 - Development of Anthropological Thought	3 hours
Language, Philosophy & Culture core	3 hours	Component Area Option Core	3 hours
Anthropology 3000 or 4000 Level selection	3 hours	Anthropology 3000 or 4000 Level selection	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ANTH 4011 - Anthropological Field Methods	3 hours	Anthropology Any 4000 Level selection	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
Anthropology 4000 Level selection	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Minors

Anthropology minor

A minor requires completion of 18 hours in anthropology.

Required courses:

- ANTH 1010 - Introduction to Anthropology

  or
- ANTH 2300 - Culture and Society

- 9 hours of anthropology courses from any level
- 6 hours of 3000- or 4000- level anthropology courses

Undergraduate Academic Certificates

Applied Anthropology certificate

An undergraduate academic certificate in applied anthropology requires 12 hours.

Required courses, 6 hours

- ANTH 2300 - Culture and Society
- ANTH 4000 - Applied Anthropology

Plus 6 hours of electives selected from

- ANTH 4060 - Community Engagement through Action Research
- ANTH 4110 - Design Anthropology
- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4220 - Anthropology in Public Health
- ANTH 4230 - Psychological Anthropology
- ANTH 4400 - Environmental Anthropology
- ANTH 4601 - Anthropology of Education
- ANTH 4720 - Human Rights Anthropology
- ANTH 4920 - Internship in Anthropology

Medical Anthropology certificate

The 15-hour certificate in Medical Anthropology underscores an understanding for the complex relationships that exist between social, cultural, psychological, biological, economic, and environmental determinants and health in terms of analyzing and evaluating how contemporary health services are organized and delivered. This certificate highlights the “health” domain of applied anthropology as well as underscores the learning goals of pre-professional students seeking careers in medicine, health, and mental health with a nuanced layer of anthropological thinking. The impact of the anthropological perspective is that it will enable students to become competitive, humanistic applicants to programs that

continue their graduate education, such as medical school, nursing school, physician assistant programs, occupational therapy, clinical psychology, or graduate programs in anthropology, sociology, international and public health, community development, and more.

Requirements

Required courses, 9 hours

- ANTH 1010 - Introduction to Anthropology

  or

- ANTH 2300 - Culture and Society

- ANTH 4000 - Applied Anthropology
- ANTH 4200 - Health, Healing and Culture: Medical Anthropology

Electives, 6 hours

Students choose 6 hours (3 hours must be advanced).

- ANTH 2700 - Human Variation: Biological Anthropology, Evolution, and Forensics
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4220 - Anthropology in Public Health
- ANTH 4230 - Psychological Anthropology
- BIOL 1710 - Biology for Science Majors I
- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 3331 - Biomedical Criminalistics
- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1412 - General Chemistry I for the Honors College
- CJUS 3330 - Introduction to Criminalistics
- CJUS 4360 - Criminal Investigation
- COMM 3220 - Health Communication
- HUMA 3020 - Introduction to the Medical and Health Humanities
- KINE 3020 - Movement for Individuals with Disabilities
- KINE 3150 - Psychology of Exercise
- KINE 3400 - Administrative Theory and Practice in Athletic and Sport Regulatory Organizations
- PHIL 3160 - Philosophy of Death and Dying
- PSYC 3490 - Psychology of Women and Gender
- PSYC 4030 - Multicultural Psychology
- PSYC 4040 - Psychology of Race in the U.S.
- PUBH 1010 - Introduction to Public Health
- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 4015 - Ethics in Public Health
- PUBH 4050 - Public Health and Health Policy
- RHAB 3000 - Active Listening in the Helping Professions
- RHAB 3100 - Disability and Society
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- SOCI 4240 - Sociology of Sexuality
- SOCI 4250 - Gender and Society
- SOCI 4550 - Sociology of Aging

Social Justice Studies certificate

The social justice studies certificate in anthropology teaches students to examine how inequitable power relations influence and shape various aspects of human life in the United States and around the globe, and to think critically about power dynamics in their own lives. The selected courses will highlight the social construction of categories such as gender, race, class, sexuality, ability, immigration status and more, and will consider how those categories intersect to differently position people in relation to systems of power and each other. Courses for this certificate will provide students with relevant skills including oral and written communication, critical thinking, teamwork, multicultural and diversity competencies, and conflict management. These abilities will prepare students to become engaged community members, locally and globally. Further, it will provide students with the knowledge and experience to approach careers in a variety of public, private and community-based domains.

Social Justice Studies certificate, 15 hours total

Students must take a combined total of 15 credit hours.

Two required courses from the following.

- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4730 - Feminist Anthropology
- ANTH 4760 - Inequality, Social Justice and the City

Electives, 9 hours

Three required electives courses from the following. One course must come from anthropology and one course from outside anthropology.

- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 4060 - Community Engagement through Action Research
- ANTH 4130 - Anthropology of Non-Governmental Organizations
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4310 - Citizenship, Borders and Belonging in the United States
- ANTH 4400 - Environmental Anthropology
- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4720 - Human Rights Anthropology
- ANTH 4730 - Feminist Anthropology
- ANTH 4760 - Inequality, Social Justice and the City
- CJUS 3500 - Inequality, Crime and Justice
- CJUS 3600 - Criminology
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 4140 - Gender and Communication
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4540 - Communication Theories of Sexuality
- COMM 4640 - Latin@ Rhetorics
- ECON 3150 - Economics of Discrimination
- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature

- ENGL 4270 - Modern Jewish Literature
- ENGL 4670 - Gender and Sexuality in Literature
- GEOG 4245 - Geography of International Development
- GEOG 4420 - Capitalism, Nature and Climate Change
- HIST 3060 - History of Sexualities in U.S.
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4248 - Palestinian History
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4455 - History of Black Women in America
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.
- PHIL 3120 - Social and Political Philosophy
- PHIL 3130 - Philosophy of Race and Racism
- PHIL 3475 - Philosophy of Climate Change
- PHIL 4150 - Feminism
- PHIL 4740 - Environmental Justice
- PSCI 3101 - Latino Politics
- PSCI 3103 - U.S. Immigration Politics
- PSCI 3104 - Race and Ethnic Politics
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3106 - African-American Politics
- PSCI 3120 - Women and Politics
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4520 - International Human Rights
- SOCI 3330 - Social Inequality and Stratification
- SOCI 3540 - Racial and Ethnic Minorities
- SOCI 4240 - Sociology of Sexuality
- SOCI 4250 - Gender and Society
- SOCI 4580 - Immigration and Race in Contemporary U.S.
- WGST 3100 - LGBTQ Studies
- WGST 3500 - Feminist Foundations
- WGST 4100 - Feminist and Womanist Theories

Social Science and Popular Culture certificate

Interdisciplinary Certificate emphasizing application of social science thinking onto the medium of popular culture. Equips students with the skills to apply multifocal perspectives onto contemporary issues in processes of social knowledge production.

Requirements, 15 hours

9 hours must be advanced. No more than 6 hours from one department.

- ANTH 1150 - World Cultures Through Film
- ANTH 2400 - AnthroPop: Symbolic Anthropology and the Artistry of Popular Culture
- COMM 3240 - Rhetoric of Japanese Popular Culture and Public Memory
- COMM 3540 - The Zombie as Rhetorical Figure
- COMM 4120 - Communication and Sport
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4320 - Communications and Virtual Gaming
- COMM 4340 - Rhetoric and Politics
- COMM 4345 - The Rhetoric of Other Worlds
- ENGL 3225 - Games, Play, and Stories
- ENGL 4620 - Studies in Literature and Film
- ENGL 4670 - Gender and Sexuality in Literature
- ENGL 4680 - Game Narratives as Literature
- HIST 3010 - History through Video Games
- HIST 3400 - History of American Country Music
- HIST 3900 - American Horror History
- INST 4860 - Asian Youth: Cultures, Activism, Media
- MRTS 4255 - Fans and Transformative Works
- MRTS 4530 - Gender and Sexuality in the Horror Film
- PHIL 3225 - Philosophy and Film
- SOCI 1520 - Contemporary Social Problems
- SOCI 2050 - Sociology of Sport
- SOCI 4600 - Internet and Society
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3320 - Pop Culture and Everyday Life in the Francophone World
- WLLC 3410 - German Popular Culture
- WLLC 3600 - Japanese Popular Culture

Department of Communication Studies

Main Departmental Office
General Academic Building, Room 309A

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Suzanne Enck, Chair

Faculty

Communication studies examines communication in human affairs and the symbolic processes through which humans interact by focusing on five basic behaviors associated with communication: analysis of self and others, effectively using and responding to verbal messages, effectively using and responding to non-verbal messages, listening and responding appropriately, and appropriately adapting messages to others. The curriculum is designed to facilitate student mastery of theory and research, to enhance communication skills and to enhance student preparation for a variety of careers or for graduate study. Many communication studies graduates pursue careers in consulting, marketing, advertising, training and development, education, non-profit leadership and human resources. Others find communication to be a useful major in preparing for law, the ministry, public relations, corporate communication, politics and community relations.

The department offers course work in rhetorical, performance and social science traditions. Students are afforded opportunities to explore communication from applied and theoretical perspectives in organizational settings and through co-curricular activities. Course work features the investigation of communication in organizational, interpersonal, aesthetic, health, small group, political, cultural, intercultural and international contexts. Students encounter topics such as gender and diversity issues, persuasion, technology, social change, conflict, narrative and cultural studies.

Debate and performance programs

Students may develop and enhance critical thinking skills by participating in intercollegiate debate and performance activities. The national-caliber debate team competes actively in both on-campus events and tournament competition at the regional and national levels. The performance interest group participates in national festivals, sponsors on-campus performances and hosts the Petit Jean National Performance Festival.

Digital media studies certificate

In conjunction with the departments of media arts and technical communication, the Department of Communication Studies offers a Digital Media Studies certificate (COMM).

Scholarships

Debate Alumni/William DeMougeot Scholarship
This scholarship is awarded on a competitive basis to outstanding students who participate in the activities of the North Texas Debate Team.

Olive M. Johnson Memorial Scholarship
This scholarship is awarded on a competitive basis to outstanding students who participate in the activities of the North Texas Debate Team.

Curtis M. Loveless Scholarship
This scholarship is awarded on a competitive basis to outstanding students who major in communication studies and participate in the activities of the North Texas Debate Team.

Information about debate scholarships may be obtained by writing to Dr. Brian Lain, Department of Communication Studies, brian.lain@unt.edu.

Lesa Woody Memorial Scholarship in Oral Interpretation and Performance Studies
This scholarship is awarded on a competitive basis to undergraduate students who participate in curricular performance studies classes and extracurricular performance studies, intercollegiate festivals and other activities.

Information about this scholarship may be obtained by writing to Dr. Justin Trudeau, Department of Communication Studies, justin.trudeau@unt.edu.

The Communication Studies Endowment Scholarship
The Communication Studies Endowment Scholarship is open to undergraduate COMM majors who have completed at least 60 hours and have a cumulative GPA of at least 3.0 and who have completed at least 12 hours of COMM classes with a 3.5 GPA in COMM classes. It is also open to COMM graduate students who have completed at least 9 hours and have a GPA of 3.5 in COMM classes.

Information about this scholarship may be obtained by writing COMMStudies@unt.edu.

Majors

Communication Studies, BA

A Bachelor of Arts with a major in communication studies equips you with the effective communication, critical thinking and problem-solving skills needed for success in today's marketplace. You will investigate communication in aesthetic, health, international, interpersonal, cultural, legal, organizational and political contexts.

Communication studies admission and initial requirements

Entering students are classified as majors but must fulfill initial requirements for the degree prior to enrolling in upper division courses in the department. An advisor is available in the department to help students with questions regarding the degree and transitioning from lower division to upper division courses. To progress from lower division course work to upper division course work, students must complete the following requirements.

30 hours of college credit

Complete at least 30 hours of college credit, including:

English composition requirement

Complete the University Core English Composition and Rhetoric requirement with a grade of C or better in each course.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II

  or
- TECM 2700 - Technical Writing

Communication studies (COMM) courses

Complete the following COMM courses with a grade of C or better in each course:

- COMM 1010 - Introduction to Communication

  or
- COMM 1440 - Honors Classical Argument
- COMM 2020 - Interpersonal Communication
- COMM 2060 - Performance of Literature

  or
- COMM 3260 - Storytelling, Narrative and Everyday Life

- COMM 2140 - Advocating in Public

  or
- COMM 3840 - Argumentation and Debate

GPA requirement for admission and initial requirements:

Have a UNT grade point average of 2.5 or higher.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding the foreign language requirement). Students wishing to major in communication studies should consult an advisor in the Undergraduate Advising Office, General Academic Building, Room 320F.

Major requirements

A total of 42 semester credit hours:

Initial requirements, 15 core hours

- COMM 1010 - Introduction to Communication

  or
- COMM 1440 - Honors Classical Argument
- COMM 2020 - Interpersonal Communication
- COMM 2060 - Performance of Literature

  or
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 2140 - Advocating in Public

  or
- COMM 3840 - Argumentation and Debate
- COMM 3010 - Communication Perspectives

Initial upper-division course sequence requirements

COMM 3010 may be taken concurrently with **one** other communication course; students may either take COMM 3010 concurrently with their final 2000-level COMM core course or their first enrollment in an upper-division course. If students elect to take COMM 3010 concurrently with their first upper-division course, it must be approved by a Department of Communication Studies advisor.

Students who do not complete COMM 3010 with a grade of C or better are prohibited from enrolling in other upper-division communication courses until they have completed COMM 3010 successfully.

9 hours distributed

One course taken from each of the following groups:

Group A

- COMM 3120 - Nonverbal Communication
- COMM 3220 - Health Communication
- COMM 3320 - Communication and Conflict Management
- COMM 3325 - Social Science Methods in Communication Research
- COMM 3420 - Communication and New Technology
- COMM 3620 - Intercultural Communication
- COMM 3720 - Small Group Communication
- COMM 3820 - Social Media Perspectives
- COMM 3920 - Organizational Communication
- COMM 4020 - Communication Theory
- COMM 4120 - Communication and Sport
- COMM 4220 - Theories of Crisis Communication
- COMM 4320 - Communications and Virtual Gaming
- COMM 4420 - Communication and Relational Development
- COMM 4520 - Theories of Persuasion
- COMM 4525 - Leadership and Strategic Communication
- COMM 4829 - Topics in Interpersonal/Organizational Studies

Group B

- COMM 3040 - Communication, Public Dialogue and Civic Deliberation
- COMM 3240 - Rhetoric of Japanese Popular Culture and Public Memory
- COMM 3340 - Methods of Rhetorical Criticism
- COMM 3440 - Public Address Studies
- COMM 3445 - Propaganda and Persuasion
- COMM 3540 - The Zombie as Rhetorical Figure
- COMM 3640 - Communication Ethics
- COMM 3840 - Argumentation and Debate
- COMM 4040 - Rhetorical Theory
- COMM 4140 - Gender and Communication
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4340 - Rhetoric and Politics
- COMM 4345 - The Rhetoric of Other Worlds
- COMM 4445 - Rhetoric of Clothing
- COMM 4540 - Communication Theories of Sexuality
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 4640 - Latin@ Rhetorics
- COMM 4740 - Landscapes of Public Memory
- COMM 4849 - Topics in Rhetorical Studies

Group C

- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3360 - Digital Storytelling and Performance
- COMM 3760 - Performance Methods
- COMM 3865 - Adaptation and Staging
- COMM 4065 - 20th Century Performance Styles
- COMM 4060 - Performance Theory
- COMM 4160 - Intertextuality and Performance
- COMM 4260 - Performance and Culture
- COMM 4265 - Performance and Activism
- COMM 4360 - Performance Composition
- COMM 4460 - Performance Art
- COMM 4465 - Per[FORM]ing Autoethnography
- COMM 4560 - Devised Performance
- COMM 4869 - Topics in Performance Studies

6 hours in Methods and/or Theory from:

Once 6 hours of Theory and/or Methods requirements have been completed, additional courses from this list may satisfy Group requirements.

- COMM 3325 - Social Science Methods in Communication Research
- COMM 3340 - Methods of Rhetorical Criticism
- COMM 3760 - Performance Methods
- COMM 4020 - Communication Theory
- COMM 4040 - Rhetorical Theory
- COMM 4060 - Performance Theory
- COMM 4220 - Theories of Crisis Communication
- COMM 4520 - Theories of Persuasion
- COMM 4540 - Communication Theories of Sexuality
- COMM 4465 - Per[FORM]ing Autoethnography

Additional requirements, complete one of the following options:

12 hours of 3000/4000 level COMM courses.

OR

6 hours of any level foreign language courses and 6 hours of 3000/4000 level COMM courses.

Students may take 3 hours of internship (COMM 4800), special problems (COMM 4900), or practicum (COMM 3880) toward this requirement.

No more than 3 hours total credit for COMM 3880 may be applied to the communication studies major or minor.

Other course requirements

None.

Optional minor requirements

An optional minor of at least 18 hours, including 6 advanced hours, from another department, or an interdisciplinary minor.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

A student who has completed 90 hours with at least a 3.5 grade point average is eligible to write a Senior Honors Thesis. Students who select this option are expected to complete their theses in the course of a single term/semester.

Students majoring in communication studies are required to have a minimum grade of C in all COMM courses that count toward the major to graduate. COMM courses taken beyond requirements for the major cannot be taken pass/no pass.

Students must observe prerequisites for each COMM course. If a student registered for a course has not completed prerequisite(s) for the course with a grade of C or better, the student is subject to being dropped from the course without notice. Prerequisites are listed with individual course descriptions.

All students taking COMM 3010 may only take one additional COMM class concurrently, which must be approved by a Department of Communication Studies advisor.

Because of the high demand for many COMM courses, students who miss the first class day without prior consent of the instructor are subject to being dropped from the course so that other students may be added. It is the student's responsibility to secure prior consent of the instructor.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
COMM 1010 - Introduction to Communication	3 hours	COMM 2020 - Interpersonal Communication	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Communication core	3 hours	COMM 2140 - Advocating in Public	3 hours
Mathematics core	3 hours	Communication core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
COMM 2060 - Performance of Literature	3 hours	COMM 3010 - Communication Perspectives	3 hours
COMM 3010 - Communication Perspectives	3 hours	Communication Group A selection	3 hours
Language, Philosophy& Culture core	3 hours	Life & Physical Science core	3 hours
Life & Physical Science core	3 hours	Optional Minor selection	3 hours
Elective	3 hours	Communication Group B selection	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Communication Group C selection	3 hours	Communication Studies 3000 or 4000 Level selection	3 hours
Communication Methods and/or Theory selection	3 hours	CLASS Distribution-Communication and Digital Skills	3 hours
Optional Minor selection	3 hours	Communication Studies 3000 or 4000 Level selection	3 hours
Optional Minor selection	3 hours	Optional Minor selection	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Communication Studies 3000 or 4000 Level selection	3 hours	Communication Studies 3000 or 4000 Level selection	3 hours
CLASS Distribution-Cultural Diversity and Global Issues	3 hours	Optional Minor selection	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Optional Minor selection	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Communication Studies, BA with grad track option leading to Communication Studies, MA

This program will target high-achieving undergraduate students majoring in communication studies, offering the opportunity for outstanding students to advance their careers by pursuing the Bachelor's and Master's degrees in a parallel and coordinated program. Students are eligible for acceptance into the program upon completion of 75 undergraduate hours, including COMM 3010 and enrollment in a theory course in communication studies.

Admissions Criteria

Students are eligible for acceptance beginning in the spring of their junior year upon completion of 75 undergraduate hours, including COMM 3010 and enrollment in a theory course in communication studies. To be considered for admission into the pathway program, students must: have a minimum 3.5 GPA both overall and in the communication studies major; completed COMM 3010 with a grade of A or B; and completed the undergraduate theory course in communication studies with a grade of A or B.

Application Process

Students will apply by submitting a letter of application, a resume or vita, 2 letters of recommendation from UNT communication studies faculty, and a scholarly writing sample from an upper-division course in communication studies.

Enrollment & Benefits

Students accepted into the grad track program can enroll in up to 12 hours of graduate-level coursework to count toward their Bachelor's degree in communication studies. As a pathway toward the Master's degree, students in this program will first earn their Bachelor's degree and then complete their Master's degree in communication studies. Students accepted into the program will be able to fulfill all degree requirements established by the department & university, while augmenting their undergraduate degree with master's level coursework that would count toward the student's upper-level electives and GROUP requirements. This pathway program will enable outstanding students to move more efficiently through their academic career.

Undergraduate course substitutes

The maximum number of graduate hours a grad track student could earn is 12 hours (4 graduate courses). These 12 hours can be comprised of a mixture of course substitutions for a combination of Group A-B-C course requirements and/or upper-division communication elective courses.

Students who are accepted into the grad track program can substitute the following graduate-level COMM courses for each corresponding COMM GROUP requirement.

All remaining courses for Communication Studies, BA must be completed.

GROUP A (Interpersonal/organizational studies)

- COMM 5120 - Group Processes
- COMM 5180 - Qualitative Research Methods in Communication
- COMM 5185 - Quantitative Research Methods in Communication
- COMM 5220 - Organizational Communication
- COMM 5221 - Crisis and Disaster Communication
- COMM 5225 - Interpersonal Communication
- COMM 5226 - Seminar in Health Communication
- COMM 5325 - Communication Theory
- COMM 5420 - Seminar in Computer-Mediated Communication
- COMM 5625 - Communication Consulting
- COMM 5820 - Seminar in Communication Processes

GROUP B (Rhetorical studies)

- COMM 5240 - Rhetoric and Mediated Culture
- COMM 5340 - Rhetorical Methods

- COMM 5345 - Rhetorical Theory
- COMM 5445 - Feminist Criticism
- COMM 5545 - Race and Public Culture
- COMM 5640 - Classical Rhetoric
- COMM 5740 - Visual Rhetoric
- COMM 5840 - Seminar in Rhetorical Studies
- COMM 5860 - Seminar in Performance Studies

GROUP C (Performance studies)

- COMM 5160 - Performative Writing
- COMM 5165 - Performance and U.S. Southern Culture
- COMM 5260 - Seminar in Adaptation and Staging
- COMM 5265 - Performance Methods
- COMM 5365 - Performance Theory
- COMM 5460 - Narrative Theory
- COMM 5560 - 20th Century Theory and Practice in Performance Studies
- COMM 5660 - Performance and Ethnography
- COMM 5760 - Performance, Culture and Tourism
- COMM 5860 - Seminar in Performance Studies

Additional information about advising for grad track students

Grad track students will choose classes in consultation with the graduate advisor to ensure that classes meet their level of preparation in the program.

Grad track students cannot enroll in COMM 5085 - Pedagogy and Communication until they have fulfilled all degree requirements for their Bachelor's degree.

COMM 5080 - Introduction to Graduate Study and Research in Communication Studies would count as a substitute for a grad track student's upper-level COMM elective.

Grad track students would be strongly advised not to take more than 12 hours (total) in a semester while still completing their Bachelor's degree (the ideal enrollment would be a split of 6 hours of undergrad courses and 3-6 hours of graduate courses). No grad track student would be permitted to take more than 3 graduate courses while still enrolled in their Bachelor's degree program.

Grad track students cannot enroll in more advanced seminars in the Master's program unless they have already taken a more general course in that area of the department (e.g., while still enrolled in the Bachelor's program, a grad track student would not be permitted to take COMM 5545 - Race and Public Culture unless they have already taken one of the rhetoric courses approved as a GROUP B substitute).

Grad track students would be advised to take graduate coursework alongside general degree electives in other departments to help balance out workload.

Courses taken for grad track credit will have a slightly different numbering system (So, instead of taking COMM 5221.601, the undergrad grad track student would sign up for COMM 5221.002 to distinguish them from the traditional Master's degree student).

Minors

Communication Studies minor

The minor in communication studies requires a total of 18 semester hours, including at least 6 upper-level hours. Minors must observe the system of prerequisites for upper-level courses.

No more than 3 hours total credit for COMM 3880 may be applied to the communication studies major or minor.

Departmental advisors are available for consultation on the minor in communication studies.

Secondary Teacher Certification

Communication Studies (Speech) teacher certification

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in speech. Upon completion of this program, students will be prepared to sit for the certification examinations in speech.

Communication studies admission and initial requirements

Entering students are classified as majors but must fulfill initial requirements for the degree prior to enrolling in upper division courses in the department. An advisor is available in the department to help students with questions regarding the degree and transitioning from lower division to upper division courses. To progress from lower division course work to upper division course work, students must complete the following requirements.

30 hours of college credit

Complete at least 30 hours of college credit, including:

English composition requirement

Complete the University Core English Composition and Rhetoric requirement with a grade of C or better in each course.

- ENGL 1310 - First-Year Writing I

- ENGL 1320 - First-Year Writing II

  or

- TECM 2700 - Technical Writing

Communication studies (COMM) courses

Complete the following COMM courses with a grade of C or better in each course:

- COMM 1010 - Introduction to Communication

  or

- COMM 1440 - Honors Classical Argument

- COMM 2020 - Interpersonal Communication

- COMM 2060 - Performance of Literature

  or

- COMM 3260 - Storytelling, Narrative and Everyday Life

- COMM 2140 - Advocating in Public

  or

- COMM 3840 - Argumentation and Debate

GPA requirement for admission and initial requirements:

Have a UNT grade point average of 2.5 or higher.

Major requirements, 42 hours

Initial requirements, 18 core hours

- COMM 1010 - Introduction to Communication

  or
- COMM 1440 - Honors Classical Argument

- COMM 2020 - Interpersonal Communication
- COMM 2040 - Public Speaking

- COMM 2060 - Performance of Literature

  or
- COMM 3260 - Storytelling, Narrative and Everyday Life

- COMM 2140 - Advocating in Public

  or
- COMM 3840 - Argumentation and Debate

- COMM 3010 - Communication Perspectives

Initial upper-division course sequence requirements

COMM 3010 may be taken concurrently with one other communication course; students may either take COMM 3010 concurrently with their final 2000-level COMM core course or their first enrollment in an upper-division course. If students elect to take COMM 3010 concurrently with their first upper-division course, it must be approved by a Department of Communication Studies advisor.

Students who do not complete COMM 3010 with a grade of C or better are prohibited from enrolling in other upper-division communication courses until they have completed COMM 3010 successfully.

6 hours in Methods and/or Theory from:

Once 6 hours of Theory and/or Methods requirements have been completed, additional courses from this list may satisfy Group requirements.

- COMM 3325 - Social Science Methods in Communication Research
- COMM 3340 - Methods of Rhetorical Criticism
- COMM 3760 - Performance Methods
- COMM 4020 - Communication Theory
- COMM 4040 - Rhetorical Theory
- COMM 4060 - Performance Theory
- COMM 4220 - Theories of Crisis Communication
- COMM 4465 - Per[FORM]ing Autoethnography
- COMM 4540 - Communication Theories of Sexuality
- COMM 4520 - Theories of Persuasion

9 hours distributed

One course taken from each of the following groups:

Group A

- COMM 3120 - Nonverbal Communication
- COMM 3220 - Health Communication
- COMM 3325 - Social Science Methods in Communication Research
- COMM 3320 - Communication and Conflict Management
- COMM 3420 - Communication and New Technology
- COMM 3620 - Intercultural Communication
- COMM 3720 - Small Group Communication
- COMM 3820 - Social Media Perspectives
- COMM 3920 - Organizational Communication
- COMM 4020 - Communication Theory
- COMM 4120 - Communication and Sport
- COMM 4220 - Theories of Crisis Communication
- COMM 4320 - Communications and Virtual Gaming
- COMM 4420 - Communication and Relational Development
- COMM 4520 - Theories of Persuasion
- COMM 4525 - Leadership and Strategic Communication
- COMM 4829 - Topics in Interpersonal/Organizational Studies

Group B

- COMM 3040 - Communication, Public Dialogue and Civic Deliberation
- COMM 3240 - Rhetoric of Japanese Popular Culture and Public Memory
- COMM 3340 - Methods of Rhetorical Criticism
- COMM 3440 - Public Address Studies
- COMM 3445 - Propaganda and Persuasion
- COMM 3540 - The Zombie as Rhetorical Figure
- COMM 3640 - Communication Ethics
- COMM 3840 - Argumentation and Debate
- COMM 4040 - Rhetorical Theory
- COMM 4140 - Gender and Communication
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4340 - Rhetoric and Politics
- COMM 4345 - The Rhetoric of Other Worlds
- COMM 4540 - Communication Theories of Sexuality
- COMM 4445 - Rhetoric of Clothing
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 4640 - Latin@ Rhetorics
- COMM 4740 - Landscapes of Public Memory
- COMM 4849 - Topics in Rhetorical Studies

Group C

- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3360 - Digital Storytelling and Performance
- COMM 3760 - Performance Methods
- COMM 3865 - Adaptation and Staging
- COMM 4060 - Performance Theory
- COMM 4065 - 20th Century Performance Styles
- COMM 4160 - Intertextuality and Performance
- COMM 4260 - Performance and Culture
- COMM 4265 - Performance and Activism
- COMM 4360 - Performance Composition
- COMM 4460 - Performance Art
- COMM 4465 - Per[FORM]ing Autoethnography
- COMM 4560 - Devised Performance
- COMM 4869 - Topics in Performance Studies

Additional requirements, complete one of the following options:

9 hours of 3000/4000 level COMM courses.

OR

6 hours of any level foreign language courses and 3 hours of 3000/4000 level COMM courses.

Students may take 3 hours of internship (COMM 4800), special problems (COMM 4900), or practicum (COMM 3880) toward this requirement.

No more than 3 hours total credit for COMM 3880 may be applied to the Communication Studies major.

Additional requirements

Students must also complete the required 21 hours in upper-level education courses (EDCI 3800, EDCI 3830, EDCI 4060, EDCI 4070, EDCI 4108, EDCI 4118, EDCI 4840) and meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

Students are required to have a minimum graded of C in all COMM courses that count toward the major to graduate.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), https://tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification

Undergraduate Academic Certificates

Communication and Risk certificate

The 15-hour certificate in Communication and Risk equips students with the skills to understand, analyze, and respond to communication challenges in contexts of uncertainty, crisis, interpersonal relationships, and public decision-making. Students learn how risk is framed, interpreted, and managed across industries such as health, sport, technology, politics, and public policy, in addition to personal relationships. This certificate prepares graduates to address real-world problems where effective communication can shape outcomes, build trust, and guide communities through complex challenges.

Required courses, 9 hours

- COMM 2020 - Interpersonal Communication

Choose 2 courses from

Students choose 2 courses (6 hours) from:

- COMM 3220 - Health Communication
- COMM 3320 - Communication and Conflict Management
- COMM 4220 - Theories of Crisis Communication

Electives, 6 hours

Choose 2 courses (6 hours) not yet completed from:

- COMM 3220 - Health Communication
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3320 - Communication and Conflict Management
- COMM 3540 - The Zombie as Rhetorical Figure
- COMM 3640 - Communication Ethics
- COMM 3720 - Small Group Communication
- COMM 4120 - Communication and Sport
- COMM 4220 - Theories of Crisis Communication
- COMM 4340 - Rhetoric and Politics
- COMM 4420 - Communication and Relational Development
- COMM 4460 - Performance Art
- COMM 4520 - Theories of Persuasion

Communication, Advocacy and Civic Engagement certificate

The Certificate in Communication, Advocacy, and Civic Engagement empowers students to become effective communicators in democratic and community contexts. Students explore how advocacy, public discourse, and civic participation shape social change, policy debates, and community life. By developing skills in persuasion, organizing, and ethical communication, graduates will be prepared to engage with pressing civic issues, foster dialogue across difference, and contribute to more just and participatory publics.

Required, 9 hours

- COMM 2140 - Advocating in Public

Choose 2 courses from

Students choose 2 courses (6 hours) from:

- COMM 3040 - Communication, Public Dialogue and Civic Deliberation
- COMM 3640 - Communication Ethics
- COMM 3840 - Argumentation and Debate

Electives, 6 hours

Choose 2 courses (6 hours) not yet completed.

- COMM 2040 - Public Speaking
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3040 - Communication, Public Dialogue and Civic Deliberation
- COMM 3360 - Digital Storytelling and Performance
- COMM 3445 - Propaganda and Persuasion
- COMM 3640 - Communication Ethics
- COMM 3840 - Argumentation and Debate
- COMM 4220 - Theories of Crisis Communication
- COMM 4260 - Performance and Culture
- COMM 4265 - Performance and Activism
- COMM 4340 - Rhetoric and Politics
- COMM 4520 - Theories of Persuasion
- COMM 4525 - Leadership and Strategic Communication
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 3620 - Intercultural Communication

Critical/Cultural Communication certificate

The Certificate in Critical/ Cultural Communication explores how communication shapes and reflects cultural practices, social identities, and power relations. Students examine how race, gender, sexuality, class, and other markers of difference are constructed, represented, and contested in everyday life, media, and public discourse. This certificate equips graduates to critically evaluate messages across a wide range of social landscapes and communicate across cultural contexts in ethically informed ways.

Required courses, 9 hours

One course from:

- COMM 2060 - Performance of Literature
- COMM 2140 - Advocating in Public

Choose 2 courses from

Students choose 2 courses (6 hours) from:

- COMM 3620 - Intercultural Communication
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4260 - Performance and Culture

Electives, 6 hours

Choose 2 courses (6 hours) from:

- COMM 3240 - Rhetoric of Japanese Popular Culture and Public Memory
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3360 - Digital Storytelling and Performance
- COMM 3540 - The Zombie as Rhetorical Figure
- COMM 3620 - Intercultural Communication
- COMM 3640 - Communication Ethics
- COMM 4140 - Gender and Communication
- COMM 4160 - Intertextuality and Performance
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4260 - Performance and Culture
- COMM 4445 - Rhetoric of Clothing
- COMM 4460 - Performance Art
- COMM 4465 - Per[FORM]ing Autoethnography
- COMM 4540 - Communication Theories of Sexuality
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 4640 - Latin@ Rhetorics
- COMM 4740 - Landscapes of Public Memory

Digital Media Studies certificate (COMM)

In this certificate program, students learn to utilize and analyze a variety of digital media tools for the purposes of communication, collaboration and research, and to develop social, political, academic and professional networks. The certificate is interdisciplinary; students must take the three core courses from MRTS, COMM and TECM. Applicable electives may be taken from any department with permission.

Certificate requirements, 15 hours

Students may receive a certificate in digital media studies by successfully completing the following courses with a grade of B or higher.

Required courses, 9 hours

- COMM 3420 - Communication and New Technology
- MRTS 3620 - Digital Media and Society
- TECM 1500 - New Media Experience

Electives, 6 hours

Select from the following courses:

- COMM 3820 - Social Media Perspectives
- COMM 4320 - Communications and Virtual Gaming
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 4270 - Strategic Social Media
- MRTS 3445 - Video Game Histories
- MRTS 3525 - Content Development for Digital Media
- MRTS 3630 - Game Studies: Players, Culture and Industry
- MRTS 4415 - Topics in Film and Television Studies (when taught as “Media Genres/Authors - Video Game Authors”)
- MRTS 4450 - Topics in Media Industry Studies (when taught as “Digital Distribution”)
- MRTS 4665 - Gender, Race and Digital Media
- Internship option (COMM 4800, MRTS 4480 or TECM 4920) with approval from undergraduate advisor
- Other courses approved by undergraduate advisor

Organizational and Corporate Communication certificate

The 15-hour Certificate in Organizational and Corporate Communication develops students’ abilities to communicate effectively in a variety of organizational contexts (e.g., workplace, institutional, and professional). Through coursework in leadership, teamwork, conflict management, and strategic message creation, students gain tools to navigate organizational dynamics, foster collaboration, and adapt communication practices across diverse professional settings. The program prepares graduates to excel in careers where clear, ethical, and impactful communication is central to organizational success.

Required courses, 9 hours

- COMM 2020 - Interpersonal Communication

Choose 2 courses

Students choose 2 courses (6 hours) from:

- COMM 3320 - Communication and Conflict Management
- COMM 3920 - Organizational Communication
- COMM 4525 - Leadership and Strategic Communication

Electives, 6 hours

Students choose 2 courses (6 hours) from:

- COMM 3120 - Nonverbal Communication
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3320 - Communication and Conflict Management
- COMM 3360 - Digital Storytelling and Performance
- COMM 3620 - Intercultural Communication
- COMM 3640 - Communication Ethics
- COMM 3720 - Small Group Communication
- COMM 3820 - Social Media Perspectives
- COMM 3920 - Organizational Communication
- COMM 4445 - Rhetoric of Clothing
- COMM 4525 - Leadership and Strategic Communication

Storytelling and Embodied Communication certificate

The 15-hour Certificate in Storytelling and Embodied Communication investigates the embodied dimensions of storytelling as a form of communication, artistry, and engagement. Students explore storytelling and embodied knowledge across diverse artistic forms while developing practical skills in performance, design, and creative communication. This certificate prepares graduates to harness storytelling as an embodied practice—one that engages voice, movement, and imagination—to communicate meaning, cultivate community, and shape cultural change.

Required courses, 9 hours

- COMM 2060 - Performance of Literature

Choose 2 courses

Students choose 2 courses (6 hours) from the following:

- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3360 - Digital Storytelling and Performance
- COMM 4460 - Performance Art

Electives, 6 hours

Choose 2 courses (6 hours) not yet completed from:

- COMM 2040 - Public Speaking
- COMM 3120 - Nonverbal Communication
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3360 - Digital Storytelling and Performance
- COMM 3620 - Intercultural Communication
- COMM 3820 - Social Media Perspectives
- COMM 3865 - Adaptation and Staging
- COMM 4160 - Intertextuality and Performance
- COMM 4260 - Performance and Culture
- COMM 4360 - Performance Composition
- COMM 4445 - Rhetoric of Clothing
- COMM 4460 - Performance Art
- COMM 4465 - Per[FORM]ing Autoethnography
- COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance
- COMM 4560 - Devised Performance
- COMM 4740 - Landscapes of Public Memory

Department of Dance and Theatre

Main Departmental Office
Radio, TV, Film and Performing Arts Building, Room 242

Mailing address:
1155 Union Circle #310607
Denton, TX 76203-5017
940-565-2211
E-mail: DanceAndTheatre@unt.edu
Web site: www.danceandtheatre.unt.edu

Dance Office
Dance and Theatre Building, Room 103

Steven Wolverton, Chair

Faculty

The Department of Dance and Theatre is dedicated to the professions of theatre and dance as central concerns of a civilized society and as primary methodologies in the education of its citizenry. Small groups of teachers and students, using as a foundation artists and artworks from both past and present and from all cultures and civilizations, collaborate in rehearsals and public performances derived from the finest possible classroom experiences.

Scholarly and empirical research are combined with a high level of spontaneous creativity to develop the entire spectrum of dance and theatre as art forms. Playwrights, actors, dancers, choreographers, directors, designers, technicians and teachers are encouraged to discover and to enhance their own creativity, to bear witness through their artistry to the richness of human life and to make artistic excellence an essential component of contemporary performance.

The Department of Dance and Theatre operates several facilities designed and equipped to generate, organize and conduct research in dance and dramatic performance, design and technical production.

The University Theatre, with a 475-seat proscenium-stage and a flexible studio theatre, both located in the Radio, TV, Film and Performing Arts Building; the Dance and Theatre Building; four dance studios; acting/directing studios; rehearsal rooms; a scene shop; a state-of-the-art costume design and construction space; the scenery and costume collection; and the department library represent a commitment to providing the finest possible theatre and dance education.

Current information regarding application, auditions, portfolio reviews, interviews and requirements is available at the department web site, www.danceandtheatre.unt.edu.

Academic advising

Students who wish to minor in dance should consult an advisor in the DATH building, Room 103C, about selection of courses, application of transfer credit in dance, and general academic requirements, policies and procedures. The approval of the department chair is required for degree audits. Theatre majors and minors will be advised by the academic advisor by contacting the department office, Room 242 of the Radio, TV, Film and Performing Arts Building.

All members of the dance and theatre faculty are available to help students achieve a successful enrollment at the University of North Texas and to provide guidance through their academic and professional careers.

Dance Advisor email: Dance-Advising@unt.edu

Theatre Advisor email: Theatre-Advising@unt.edu

Dance programs of study

The department offers undergraduate programs in the following area:

- Dance Choreography and Performance certificate
- Dance Studio Teaching certificate
- Dance Wellness certificate

Theatre programs of study

The department offers an undergraduate program in the following area:

- Bachelor of Arts with a major in theatre
- Theatre minor
- Theatre teacher certification
- Theatre with a concentration in Design/Tech, BA
- Theatre with a concentration in Acting, BA
- Theatre with a concentration in Theatre Studies, BA

The department offers a minor in theatre and a series of courses designed to prepare students to sit for the certification examinations in theatre.

The Bachelor of Arts (BA) is a flexible liberal arts degree intended to offer a basic comprehensive knowledge of theatre, and the BA program in theatre is dedicated to providing a well-rounded major within a liberal arts context.

Undergraduate majors are required to complete courses in acting, design and technical theatre, and theatre history/dramatic literature, as well as electives at the 3000–4000 level. Theatre elective courses include courses in intermediate and advanced level acting and movement, design and technical theatre, stage management, teaching methods in creative drama, theatre for young audiences, playwriting, and a directing series. The balance of the course work provides opportunities in all elements of production. The faculty considers the optimum preparation for the theatre is to be comprised of a liberal arts undergraduate major in theatre and a graduate conservatory education. The BA program is projected to be a 4-year degree with the preferred entry point to occur during the fall semester. However, duration in the program can be affected by the timeliness of the major declaration, number and type of transfer credits and semester credit load.

Scholarships

The Ann Bradshaw Stokes Award is provided by a grant from the Ann Bradshaw Stokes Foundation. The Gaylord-Hughes Scholarship has been made possible through an endowment by noted actress Martha Gaylord and by Tom Hughes, late producer and managing director of the Dallas Summer Musicals and a Distinguished Alumnus; by the work of guest artists; and by contributions. Two recently endowed scholarships honoring former department chairs include the Ed DeLatte Scholarship in musical theatre and the Ralph B. Culp Scholarship in directing. The Lucille Murchison Scholarships in dance, costuming and technical theatre are the result of the department's participation in the UNT Centennial Extravaganza. Dance scholarships are supported by gifts from faculty, students and alumni. The Chun Hui Lee Dance Scholarship is the result of the generosity of Mr. Chun Hui Lee. The Mills Dance Scholarship was established by an alumnus, the late Eugene Mills. The Joyce and C.R. Pennington Dance Education award is made possible by an endowment by Joyce and C.R. Pennington. The Jonathan Bostick Memorial Dance Scholarship is a result of an endowment in memoriam for dance alumnus, Jonathan Bostick.

All scholarships are presented to students majoring in Dance and Theatre or minoring in Dance within the Department of Dance and Theatre during any term/semester or summer session. Each year on announced dates, interested students must apply for departmental scholarships.

Information is available in the department office in the Radio, TV, Film and Performing Arts Building, Room 242, or from the department web site at www.danceandtheatre.unt.edu.

Organizations

The serious student of dance or theatre may become a member of The Drama Club and Chi Tau Epsilon which are undergraduate organizations that serve the dance and theatre department and other university programs.

Majors

Theatre with a concentration in Acting, BA

A Bachelor of Arts with a major in theatre provides you with a comprehensive understanding of theatre and the skills required to make a show work, both on and off the stage.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in theatre and a concentration in acting.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences (excluding the foreign language requirement).

Major requirements, 45 hours

A minimum of 45 semester hours, including a theatre core of 27 credit hours.

Theatre core, 27 hours

- THEA 1050 - Acting: Fundamentals
- THEA 1440 - Play Analysis
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700
- THEA 3050 - Acting: Realism I
- THEA 3700 - Audition for the Stage
- THEA 4700 - The Business of Acting

Concentration in acting, 18 hours

Design/Tech, 3 hours from the following:

Students in the acting concentration are encouraged to take THEA 2380, as it offers the instruction of skills for career readiness in the field.

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1280 - Stage Management I
- THEA 2380 - Theatrical Makeup

Practicum, 3 hours from the following:

Acting concentration students are strongly encouraged to take THEA 3910 and THEA 4600, as these are courses based in acting skills.

- THEA 2095 - Stage Production I
- THEA 3910 - Actors' Ensemble
- THEA 4600 - Rehearsal and Performance for the Stage
- THEA 3095 - Stage Production II (one hour)
- THEA 4095 - Stage Production III (one hour)

Critical perspectives, 3 hours

3 hours chosen from the following:

- THEA 4260 - History of the Broadway Musical
- THEA 4370 - Contemporary Latinx Theatre
- THEA 4380 - LGBTQ Plays and Performance After 1960s
- THEA 4390 - Theatre and Social Change
- THEA 4395 - Theatre and the Holocaust

Areas of interest, 9 hours (advanced)

Work completed in THEA 4500, THEA 4910, or THEA 4920 must be acting-based.

- THEA 3140 - Acting: Styles and Periods
- THEA 3351 - Theatre Movement II
- THEA 4000 - Acting: Musical Theatre
- THEA 4050 - Acting: Realism II
- THEA 4051 - The Art and Craft of Voice Over
- THEA 4140 - Acting: Shakespeare
- THEA 4310 - Acting for the Camera
- THEA 4351 - Physical Theatre
- THEA 4500 - Theatre Topics
- THEA 4910 - Special Problems
- THEA 4920 - Theatre Practicum

Other course requirements

Students must follow all course prerequisites.

Minor

Optional (a related field such as music, psychology or art is recommended).

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

1. To remain a theatre major and to graduate, students majoring in theatre must maintain a cumulative grade point average of 2.5 for all theatre courses.
2. Students majoring in theatre must enroll in a performance/production course (THEA 4600 or equivalent) each term/semester the student performs or designs in public productions sponsored or approved by the department.
3. Transfer work to be substituted for required theatre courses must be approved by the departmental advisor.
4. The department does not allow students to obtain a D or below more than twice in a theatre course comprising the major. Once the student receives the second D or below in the same course, the student will be dismissed from the major.
5. Students who miss the first day of class without consent of the instructor are subject to be administratively dropped from the course so that other students may be added. Students who miss the first day of class because of illness or some other acceptable excuse must notify the instructor on record the day of the absence.
6. Students must observe prerequisites for each theatre course. If a student has not completed prerequisites for a particular course, the student is subject to administrative drop without notice. Prerequisites are listed with individual course descriptions.
7. Students majoring or minoring in theatre who have received a grade of C in any of the three prerequisite acting courses (THEA 1050 Acting: Fundamentals, THEA 2051 Theatre Voice I, or THEA 2351 Theatre Movement I), even if they are transferring that course in from another institution, will be required to complete an audition in order to be considered for enrollment in THEA 3050 Acting: Realism I.

Theatre with a concentration in Dance, BA

A Bachelor of Arts with a major in theatre provides you with a comprehensive understanding of theatre and the skills required to make a show work, both on and off the stage.

The following requirements must be satisfied for a Bachelor of Arts with a major in theatre and a concentration in dance.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Degree requirements and graduation section of this catalog and the College of Liberal Arts and Social Sciences (excluding the foreign language requirement).

Major requirements, 45 hours

A minimum of 45 semester hours, including a theatre core of 15 credit hours.

Theatre Core- 15 Hours

Acting and Design

6 hours (one from Acting and one from Design)

Acting

- THEA 1050 - Acting: Fundamentals
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I

Design

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1280 - Stage Management I
- THEA 1700 - Theatrical Design I

Choreography

3 hours

- DANC 2230 - Choreographic Methods

Critical Perspectives

3 hours from the following:

- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700
- DANC 3800 - History of Concert Dance in the U.S.: 1900–Present

Practicum

3 hours from the following:

- THEA 2095 - Stage Production I
- THEA 3095 - Stage Production II
- THEA 4095 - Stage Production III
- THEA 4600 - Rehearsal and Performance for the Stage

Dance concentration, 30 hours

Dance Principles

12 hours

- DANC 3230 - Choreographic Design
- DANC 4070 - Dance Pedagogy: The Teacher Prepares
- DANC 3050 - Dance Kinesiology
- DANC 3400 - Arts Entrepreneurship

Dance Practices

Take courses of the following: 18 hours

Must take 2 lower division, 2 upper division, and 2 of your choice from either menu.

- DANC 1310 - Social Dance
- DANC 1600 - Foundations of Hip Hop
- DANC 1700 - Foundations of Tap
- DANC 2110 - Strength and Conditioning for Performance
- DANC 2400 - Foundations of Contemporary Dance
- DANC 2410 - Foundations of Ballet
- DANC 2510 - Dance and Drill
- DANC 3510 - Commercial Dance
- DANC 3620 - Intermediate Hip Hop
- DANC 3720 - Intermediate Tap
- DANC 4400 - Intermediate Contemporary Dance
- DANC 4410 - Intermediate Ballet
- DANC 4500 - Musical Theatre Dance
- THEA 3351 - Theatre Movement II
- THEA 4000 - Acting: Musical Theatre
- THEA 4351 - Physical Theatre

Other course requirements

Students must follow all course prerequisites.

Minor

Optional (a related field such as music, psychology, or art is recommended).

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements:

1. Students are required to complete one of the following certificates: Choreography and Performance, Dance Wellness, Team Performance, and Dance Studio Teaching, as part of their concentration in dance.
2. To remain a theatre major and to graduate, students majoring in theatre must maintain a cumulative grade point average of 2.5 for all dance and theatre courses.
3. Students majoring in theatre must enroll in a performance/production course (THEA 4600 or equivalent) each term/semester the student performs or designs in public productions sponsored or approved by the department.
4. Transfer work to be substituted for required theatre courses must be approved by the departmental advisor.
5. The department does not allow students to obtain a D or below more than twice in a dance or theatre course comprising the major. Once the student receives the second D or below in the same course, the student will be dismissed from the major.
6. Students majoring or minoring in theatre who have received a grade of C in any of the prerequisite courses, even if they are transferring that course in from another institution, will be required to complete an audition in order to be considered for enrollment in upper division courses.

Theatre with a concentration in Design/Tech, BA

A Bachelor of Arts with a major in theatre provides you with a comprehensive understanding of theatre and the skills required to make a show work, both on and off the stage.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in theatre and a concentration in design/tech.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding the foreign language requirement).

Major requirements, 45 hours

A minimum of 45 semester hours, including a theatre core of 21 credit hours.

Theatre core, 21 hours

Required courses, 12 hours

- THEA 1440 - Play Analysis
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700
- THEA 4346 - Design/Tech and The Profession

3 hours from

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1280 - Stage Management I
- THEA 2380 - Theatrical Makeup

3 hours from

- THEA 1050 - Acting: Fundamentals
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I

3 courses from

Select three courses from the following:

- THEA 2095 - Stage Production I (one hour)
- THEA 3095 - Stage Production II (one hour)
- THEA 4095 - Stage Production III (one hour)
- THEA 4600 - Rehearsal and Performance for the Stage (one hour)

Concentration in design/tech, 24 hours

Required courses:

- THEA 1700 - Theatrical Design I
- THEA 1701 - Theatrical Design II

3 hours from

Select three hours from the following courses, in addition to the course chosen for the theatre core:

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1280 - Stage Management I
- THEA 2380 - Theatrical Makeup

Areas of interest, 15 hours (advanced)

15 advanced hours from the following courses in consultation with the department advisor:

- THEA 3070 - History of Theatrical Costume and Décor
- THEA 3130 - Lighting II
- THEA 3143 - Costume II
- THEA 3146 - Stagecraft II
- THEA 3280 - Stage Management II
- THEA 4110 - Scene Painting for the Theatre
- THEA 4112 - Advanced Scenic Painting for the Theatre
- THEA 4130 - Lighting III: Design
- THEA 4143 - Costume Design
- THEA 3701 - Scenic Design
- THEA 4190 - Sound Production and Design for the Theatre
- THEA 4910 - Special Problems
- THEA 4920 - Theatre Practicum
- THEA 3043 - Costume Crafts
- THEA 3046 - Computer Aided Drafting and Design for the Entertainment Industry

Other course requirements

Students must follow all course prerequisites.

Minor

Optional (a related field such as music, psychology or art is recommended).

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

a. To remain a theatre major and to graduate, students majoring in theatre must maintain a cumulative grade point average of 2.5 for all theatre courses.

b. Students majoring in theatre must enroll in a production course (THEA 4500 or equivalent) each term/semester the student performs or designs in public productions sponsored or approved by the department.

c. Transfer work to be substituted for required theatre courses must be approved by the departmental advisor.

d. The department does not allow students to obtain a D or below more than twice in a theatre course comprising the major. Once the student receives the second D or below in the same course, the student will be dismissed from the department.

e. Students who miss the first day of class without consent of the instructor are subject to be administratively dropped from the course so that other students may be added. Students who miss the first day of class because of illness or some other acceptable excuse must notify the instructor on record the day of the absence.

f. Students must observe prerequisites for each theatre course. If a student has not completed prerequisites for a particular course, the student is subject to administrative drop without notice. Prerequisites are listed with individual course descriptions.

Theatre with a concentration in Theatre Studies, BA

The BA program in theatre with a concentration in theatre studies provides students with a comprehensive understanding of the context, development, and implementation of live stage productions.

In this concentration, the delicate balance of hands-on training and effective communication skills with broad theoretical knowledge prepares you for a lifetime in theatre and dance that may include a career as an educator in schools and training programs, arts administrator, a private business owner, programming director for performance venues and arts festivals, public relations specialist, recreation worker, literary or talent agent, therapist, among others.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in theatre.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding the foreign language requirement).

Major requirements, 45 hours

A minimum of 45 semester hours, including a theatre core of 18 credit hours:

Theatre core, 18 hours

Required courses, 9 hours

- THEA 1440 - Play Analysis
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700

3 hours from

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 2380 - Theatrical Makeup

3 hours from

- THEA 1050 - Acting: Fundamentals
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I

3 courses from

- THEA 2095 - Stage Production I (one hour)

  or
- THEA 3095 - Stage Production II (one hour)

  or
- THEA 4095 - Stage Production III (one hour)

  or
- THEA 4600 - Rehearsal and Performance for the Stage (one hour)

Concentration in Theatre Studies, 27 hours

Select 3 hours from the following courses, in addition to course chosen for the theatre core:

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1050 - Acting: Fundamentals
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I
- THEA 2380 - Theatrical Makeup
- Critical Perspectives, 3 hours from:
- THEA 4260 - History of the Broadway Musical
- THEA 4370 - Contemporary Latinx Theatre
- THEA 4380 - LGBTQ Plays and Performance After 1960s
- THEA 4390 - Theatre and Social Change
- THEA 4395 - Theatre and the Holocaust

Areas of interest

You may choose a range of lower and upper-division theatre and dance courses, in consultation with the department theatre advisor.

The category of "Areas of interest" is constructed to accommodate multiple academic interests, whether that interest is dance or theatre history, writing production reviews, choreography, performance, directing, playwriting, design/tech, or teaching.

An exciting aspect of a concentration in theatre studies is the opportunity to design unique study pathways through the blending of any number of existing dance and theatre courses that reflect your particular interests.

Some courses may have several prerequisites or require an audition prior to enrollment.

Other course requirements

Students must follow all course prerequisites.

Through a juried review process, theatre performance faculty will assess the skill level of all students completing THEA 3050 to determine eligibility for enrollment in the following courses: THEA 3140, THEA 4000, THEA 4140, THEA 4310. Individuals may be required to repeat THEA 3050.

Minor

Optional (a related field such as music, dance or art is recommended).

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

To remain a theatre major and to graduate with a degree in theatre, students majoring in theatre must maintain a cumulative grade point average of 2.5 for all theatre courses.

Students majoring in Theatre must enroll in a theatre performance/production course (THEA 3095, THEA 4095, THEA 4600 or equivalent) each term or semester the student performs or designs in public productions sponsored or approved by the department.

Transfer work to be substituted for required theatre courses must be approved by the theatre advisor.

The department does not allow students to obtain a D or below more than twice in a theatre course comprising the major. Once the student receives the second D or below in the same course, the student will be dismissed from the department.

Students who miss the first day of class without consent of the instructor are subject to be administratively dropped from the course so that other students may be added. Students who miss the first day of class because of illness or some other acceptable excuse must notify the instructor on record the day of the absence.

Students must observe prerequisites for each theatre course. If a student has not completed prerequisites for a particular course, the student is subject to administrative drop without notice. Prerequisites are listed with individual course descriptions.

Students majoring or minoring in theatre who have received a grade of C in any of three prerequisites (THEA 1050: Acting Fundamentals, THEA 2051: Theatre Voice I, or THEA 2351: Theatre Movement I), even if students are transferring in that course from another institution, will be required to complete an audition in order to be considered for enrollment in THEA 3050: Acting: Realism I.

Theatre, BA

A Bachelor of Arts with a major in theatre provides you with a comprehensive understanding of theatre and the skills required to make a show work, both on and off the stage.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in theatre.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding the foreign language requirement).

Major requirements

A minimum of 45 semester hours, including a theatre core of 18 credit hours:

Theatre core, 18 hours

Required courses, 9 hours

- THEA 1440 - Play Analysis
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700

3 hours from

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1280 - Stage Management I
- THEA 2380 - Theatrical Makeup

3 hours from

- THEA 1050 - Acting: Fundamentals
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I

3 courses from

- THEA 2095 - Stage Production I (one hour), or
- THEA 3095 - Stage Production II (one hour), or
- THEA 4095 - Stage Production III (one hour), or
- THEA 4600 - Rehearsal and Performance for the Stage (one hour)

Areas of interest, 27 hours

To complete the BA with a major in theatre, students may choose 27 hours from a range of lower and upper-division theatre courses (areas of interest) in consultation with department advisor.

Other course requirements

a. Students must follow all course prerequisites.

b. Through a juried review process, theatre performance faculty will assess the skill level of all students completing THEA 3050 to determine eligibility for enrollment in the following courses: THEA 3140, THEA 4000, THEA 4140, and THEA 4310. Individuals may be required to repeat THEA 3050.

Minor

Optional (a related field such as music, psychology or art is recommended).

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

a. To remain a theatre major and to graduate, students majoring in theatre must maintain a cumulative grade point average of 2.5 for all theatre courses.

b. Students majoring in theatre must enroll in a production course (THEA 4500 or equivalent) each term/semester the student performs or designs in public productions sponsored or approved by the department.

c. Transfer work to be substituted for required theatre courses must be approved by the departmental advisor.

d. The department does not allow students to obtain a D or below more than twice in a theatre course comprising the major. Once the student receives the second D or below in the same course, the student will be dismissed from the department.

e. Students who miss the first day of class without consent of the instructor are subject to be administratively dropped from the course so that other students may be added. Students who miss the first day of class because of illness or some other acceptable excuse must notify the instructor on record the day of the absence.

f. Students must observe prerequisites for each theatre course. If a student has not completed prerequisites for a particular course, the student is subject to administrative drop without notice. Prerequisites are listed with individual course descriptions.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
Communication core	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Component Area Option A core	3 hours	THEA 1440 - Play Analysis	3 hours
Mathematics core	3 hours	Communication core	3 hours
THEA Acting selection	3 hours	Life and Physical Sciences core	1 hour
THEA Technical selection	3 hours	Stage Production and Performance selection	3 hours
		Elective	2 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Life and Physical Sciences core	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Social and Behavioral Sciences core	3 hours	Component Area Option core	3 hours
THEA elective	3 hours	THEA elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
THEA 3030 - World Theatre to 1700	3 hours	THEA 3040 - World Theatre After 1700	3 hours
Stage Production and Performance selection	1 hour	CLASS Distribution-Communication and Digital Skills	3 hours
THEA elective	3 hours	Stage Production and Performance selection	3 hours
THEA elective	3 hours	THEA elective	1 hour
Elective-advanced	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	1 hour
Total	16 hours	Total	14 hours

Year 4

Semester 1		Semester 2	
THEA elective-advanced	3 hours	THEA elective	3 hours
THEA elective-advanced	3 hours	THEA elective-advanced	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Minors

Theatre minor

A minor in theatre consists of 18 semester hours.

Requirements

18 hours from the following:

9 hours from

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 1050 - Acting: Fundamentals
- THEA 1440 - Play Analysis
- THEA 1700 - Theatrical Design I
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I
- THEA 2380 - Theatrical Makeup

Plus 9 advanced hours in theatre

All Level Teacher Certification

Theatre teacher certification

The College of Liberal Arts and Social Sciences encourages students to explore teaching as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in theatre.

Upon completion of this program, students will be prepared to sit for the certification examinations in Theatre.

Requirements for theatre teaching field

- THEA 1050 - Acting: Fundamentals
- THEA 1440 - Play Analysis
- THEA 2095 - Stage Production I
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700
- THEA 3095 - Stage Production II
- THEA 3100 - Directing I
- THEA 3400 - Theatre for Young Audiences
- THEA 4095 - Stage Production III
- THEA 4240 - Theatre in the Classroom

6 hours from

- THEA 1700 - Theatrical Design I
- THEA 1701 - Theatrical Design II
- THEA 2051 - Theatre Voice I
- THEA 2351 - Theatre Movement I
- THEA 3070 - History of Theatrical Costume and Décor

6 hours from

- THEA 1030 - Lighting and Sound I
- THEA 1043 - Costume I
- THEA 1046 - Stagecraft I
- THEA 2380 - Theatrical Makeup

Additional requirements

See Theatre, BA for additional course work and GPA requirements.

Students must also complete the required 21 hours in upper-level education courses (EDCI 3800, EDCI 3830, EDCI 4060, EDCI 4070, EDCI 4108, EDCI 4118 and EDCI 4840) and meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Undergraduate Academic Certificates

Dance Choreography and Performance certificate

The Dance Choreography and Performance Certificate is a 15-credit-hour program that provides students with an immersive exploration of the art of dance creation and performance. Through this program, students will gain hands-on experience and practical knowledge tailored to enhance their skills in choreography, performance techniques, and production, all relevant and adaptable to their unique career aspirations in the dance industry.

Interested students must apply and be accepted into the Dance Choreography and Performance certificate program by the faculty of the Department of Dance and Theatre. Upon acceptance, students are required to meet with the department advisor to plan their coursework and ensure a cohesive, supportive academic path.

Requirements, 9 hours

- DANC 2230 - Choreographic Methods
- DANC 3230 - Choreographic Design
- DANC 4620 - Performance Production

Select 2 of the following

6 credit hours, including 3 advanced hours.

- DANC 1310 - Social Dance
- DANC 1600 - Foundations of Hip Hop
- DANC 1700 - Foundations of Tap
- DANC 2110 - Strength and Conditioning for Performance
- DANC 2400 - Foundations of Contemporary Dance
- DANC 2410 - Foundations of Ballet
- DANC 2510 - Dance and Drill
- DANC 3510 - Commercial Dance
- DANC 3620 - Intermediate Hip Hop
- DANC 3720 - Intermediate Tap
- DANC 4400 - Intermediate Contemporary Dance
- DANC 4410 - Intermediate Ballet
- DANC 4500 - Musical Theatre Dance

Dance Studio Teaching certificate

The Dance Studio Teaching certificate is a 15-credit-hour program that prepares students for careers as dance instructors in studio settings. This program equips students with essential skills in dance pedagogy, class management, and curriculum design, with a focus on fostering technique, creativity, and positive learning environments for diverse learners in dance studios.

Interested students must apply and be accepted into the program by the Department of Dance and Theatre faculty. Upon acceptance, students will meet with the department advisor to plan their coursework and align their academic path with their teaching goals.

Required, 6 hours

- DANC 3400 - Arts Entrepreneurship
- DANC 4070 - Dance Pedagogy: The Teacher Prepares

Select 3 of the following

9 credit hours total, including 3 advanced credit hours.

- DANC 1600 - Foundations of Hip Hop
- DANC 1700 - Foundations of Tap
- DANC 2110 - Strength and Conditioning for Performance
- DANC 2230 - Choreographic Methods
- DANC 2400 - Foundations of Contemporary Dance
- DANC 2410 - Foundations of Ballet
- DANC 2800 - Survey of Dance
- DANC 3620 - Intermediate Hip Hop
- DANC 3720 - Intermediate Tap
- DANC 4400 - Intermediate Contemporary Dance
- DANC 4410 - Intermediate Ballet

Dance Wellness certificate

The Dance Wellness certificate is a 15-credit-hour program that prepares students with key skills in stress reduction, physical conditioning, and kinesiology tailored for dancers. Students will gain a comprehensive understanding of wellness practices that enhance physical health, prevent injuries, and support sustainable performance in the dance field.

Interested students must apply and be accepted into the Dance Wellness certificate program by the faculty of the Department of Dance and Theatre. Upon acceptance, students are required to meet with the department advisor to plan their coursework, ensuring a cohesive and supportive academic path aligned with their wellness goals.

Requirements, 6 hours

- DANC 2110 - Strength and Conditioning for Performance
- DANC 3050 - Dance Kinesiology

Select 3 of the following

9 credit hours, including 6 advanced hours.

- DANC 1100 - Stress Reduction Through Movement
- DANC 1310 - Social Dance
- DANC 1600 - Foundations of Hip Hop
- DANC 1700 - Foundations of Tap

- DANC 2400 - Foundations of Contemporary Dance
- DANC 2410 - Foundations of Ballet
- DANC 3620 - Intermediate Hip Hop
- DANC 3720 - Intermediate Tap
- DANC 4400 - Intermediate Contemporary Dance
- DANC 4410 - Intermediate Ballet

Team Performance certificate

The Team Performance certificate is a 15-credit-hour program designed to equip students with comprehensive training in dance performance. Through this program, students gain hands-on experience in performance techniques, artistry, and the discipline required for excellence in dance. This immersive program is tailored to support students' unique career aspirations in the dance industry, providing practical knowledge and performance skills adaptable to various professional settings.

Interested students must apply and be accepted into the Team Performance certificate program by the faculty of the Department of Dance and Theatre. Upon acceptance, students are required to meet with the department advisor to plan their coursework, ensuring a cohesive and supportive academic path aligned with their performance goals.

Requirements, 12 hours

- DANC 2110 - Strength and Conditioning for Performance
- DANC 2510 - Dance and Drill
- DANC 3400 - Arts Entrepreneurship
- DANC 3510 - Commercial Dance

Select 1 or the following, 3 hours

- DANC 3620 - Intermediate Hip Hop
- DANC 4400 - Intermediate Contemporary Dance
- DANC 4410 - Intermediate Ballet
- DANC 4500 - Musical Theatre Dance

Department of Economics

Main Departmental Office
Wooten Hall, Room 325

Mailing address:
1155 Union Circle #311457
Denton, TX 76203-5017
940-565-2573
Web site: economics.unt.edu

Advising Offices
Undergraduate, Wooten Hall, Rooms 334 and 335
Graduate, Wooten Hall, Rooms 343 and 348

Jeffrey Rous, Chair

Faculty

The Department of Economics prepares students for career opportunities in the increasingly competitive domestic and global marketplace. The department is committed to a balance of high-quality teaching and research. Students benefit from the personal attention of faculty and develop a clear understanding of applications of economic theory to real-world policy issues.

There are more than 59,000 economists in the United States working in three main areas: 42 percent work in business; 37 percent in teaching, research and consulting; and 21 percent in government. Economists work in many fields, including international trade, forecasting, environmental analysis, monetary theory, economic development, insurance, banking, finance, consulting, health care, communications, marketing, law and labor relations. There is an expected increase in the number of jobs for economists of 14% between 2019-2029, which is larger than the 4% increase in the number of jobs for all occupations.

An undergraduate major in economics is excellent preparation for graduate work in economics, business, law and other fields. An applied approach helps students develop the technical and quantitative skills necessary for graduate study in many of today's expanding career fields in business and research.

Programs of study

Programs in the Department of Economics offer students a diversity of options ranging from a liberal arts perspective to a more quantitative technical background.

In addition to the BA and BSECO degrees offered in the College of Liberal Arts and Social Sciences, a Bachelor of Business Administration with a professional field in economics is available through the Department of Finance, Insurance, Real Estate and Law in the Ryan College of Business, and is served by advisors in the Department of Economics.

Bachelor of Business Administration

BBA candidates must complete a minimum of 120 semester hours, 42 of which must be advanced, and meet "University Core Curriculum" and "General University Requirements" as stated in the Degree and Program Requirements section of this catalog, and general course and curriculum requirements of the Ryan College of Business. The professional field in economics is planned with the economics undergraduate advisor and includes ECON 3550, ECON 3560 and ECON 4140; 9 additional advanced economics hours; and 12 hours of approved supporting courses, including FINA 4500.

Scholarships

Scholarship applications are available online and in Wooten Hall, Room 325. The deadline for applying is early March. Scholarship winners are announced in late March.

The Melton-Cochran Scholarship

The Melton-Cochran Scholarship is in memory of Rosser B. "Abe" Melton (a faculty member from 1946-1975) and Kendall P. Cochran (on the faculty from 1957-1989, and department chair from 1969-1977). Melton and Cochran were both strong mentors and inspirations to students. This scholarship is awarded annually to

an outstanding undergraduate economics major of junior standing who has completed at least 60 hours of coursework and maintains a minimum 3.5 overall grade point average.

Department of Economics Scholarships for Academic Excellence

Scholarships are awarded to outstanding undergraduate economics majors.

Students who have declared economics as their major are eligible, including entering freshmen.

To be eligible, an undergraduate student must have a minimum GPA of 3.0. Entering freshman who have a minimum SAT score of 1000 or an ACT score of at least 24 are eligible to apply.

The amount and number of awards depend on the availability of funding.

Rising Eagle Scholarship

This scholarship is for current economics majors who are graduating with a BA/BS/BBA in Economics and are applying to the master's-level program in economics. Students must have a minimum GPA of 3.0 and have made application to the graduate school. The number and amount of awards depend on the availability of funding.

Lewis M. Abernathy Scholarship

This scholarship is named in honor of Professor Lewis M. Abernathy, retired UNT economics faculty member and distinguished department chairman.

To be eligible, an undergraduate student must have a minimum GPA of 3.0.

The amount and number of awards depend on the availability of funding.

Dr. Margie Tieslau Scholarship

This scholarship is made possible by the contributions of Deborah Watkins (MS'97) in honor of Dr. Margie Tieslau's contributions to the department and education of our graduate students. The scholarship is merit based and is awarded to an undergraduate economics major with an outstanding academic record. Students must have a minimum GPA of 3.0 and maintain full time enrollment status unless they are graduating.

HOUS Scholarship

This scholarship is made possible by the contributions of Richard Johnson (BS'16) in honor of Dr. Hauge and Rous and their contributions to economic education. The scholarship is merit based and is awarded to an undergraduate or graduate economics major with an outstanding academic record. Students must have a minimum GPA of 3.0 and maintain full time enrollment status unless they are graduating.

Center for Economic Education

Steven L. Cobb, Director

The Center for Economic Education is committed to making formal instruction in economics more accessible to educators.

The center maintains an in-service teacher training program of course offerings regularly scheduled during evening hours and in the summer. This program provides a mechanism for the in-service training of economics teachers in community colleges and secondary and elementary schools.

In addition to these regional instructional programs, the center develops instructional material, conducts research in economics education, maintains an instructional resource center and provides technical assistance in matters pertaining to instruction in economics.

Economics Research Group

Michael C. Carroll, Director

The Department of Economics at the University of North Texas houses the Economics Research Group (ERG), one of the country's leading economics research groups. By providing support to communities and industry, the ERG is leading the study of the *innovation economy*, defining the dynamics of this economy and analyzing it to provide understanding and actionable data. ERG conducts in-depth research, solving tough economic issues leading to new ideas and solutions facing society. Examples include water costs and impacts, efficiencies associated with the movement of goods, infrastructure development and integration assessment, and bio-based industry growth.

Committed to the creation and application of world-class economic strategies, ERG is working with global partners to assess the economy and transform data and trends into innovative, actionable solutions. Areas of expertise include: innovation economy, social network theory, embedded economy, creative economy, economic impact studies, and economic development strategies.

Majors

Economics, BA

The Department of Economics helps students develop a clear understanding of how to apply economic theory to real-world policy issues. We administer a rigorous curriculum leading to a Bachelor of Arts with a major in economics.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in economics.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements

Majors must complete at least 33 hours in economics, including:

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- ECON 3550 - Intermediate Micro-Theory
- ECON 3560 - Intermediate Macro-Theory
- ECON 4510 - History of Economic Thought

Plus 18 additional upper-division hours

Plus 18 additional upper-division hours above the 3000 level, including at least 9 hours from the following:

- ECON 4030 - Economic Cycles and Forecasting
- ECON 4100 - Comparative Economic Systems
- ECON 4140 - Managerial Economics
- ECON 4150 - Public Economics and Policy Analysis
- ECON 4290 - Labor Economics
- ECON 4420 - Open Economy Macroeconomics
- ECON 4450 - Game Theory
- ECON 4550 - Law and Economics
- ECON 4650 - Economics of Cities
- ECON 4870 - Introduction to Econometrics
- ECON 4875 - Empirical Linear Modeling

Additional requirements

To graduate with a BA with a major in economics, a student must have a GPA of 2.5 in all economics courses (including transfer work). Students may retake UNT economics courses to improve the overall economics GPA. In computing the economics GPA, only the grade in the last repetition of a course will be included. BA students may not use ECON 3200 to count toward a major in economics.

A student must earn at least a B in ECON 1100 and ECON 1110 and at least a C in all economics courses above the 3000 level.

Other course requirements

Math requirement

- MATH 1190 - Business Calculus

  or
- MATH 1710 - Calculus I

Statistics requirement

- ECON 4630 - Data Analysis in Economics (with a grade of C or better)

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ECON 1100 - Principles of Microeconomics	3 hours	ECON 1110 - Principles of Macroeconomics	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
CLASS Foreign Language-elementary	3 hours	Creative Arts core	3 hours
Economics Mathematics selection	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ECON 3550 - Intermediate Micro-Theory	3 hours	ECON 3560 - Intermediate Macro-Theory	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Language, Philosophy & Culture core	3 hours	Component Area Option A core	3 hours
Life & Physical Science core	3 hours	Life & Physical Science core	3 hours
CLASS Foreign Language-intermediate	3 hours	CLASS Foreign Language-intermediate	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ECON 4630 - Data Analysis in Economics	3 hours	ECON 4510 - History of Economic Thought	3 hours
Economics Elective selection	3 hours	Economics Elective selection	3 hours
Economics Elective selection	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
Elective	3 hours	Elective	3 hours
Elective-Advanced	3 hours	Elective - Advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Economics Elective selection	3 hours	Economics Elective selection	3 hours
Economics Elective selection	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective - Advanced	3 hours
Total	15 hours	Total	15 hours

Economics, BSECO

A Bachelor of Science in economics teaches you a marketable, transferable skill set that makes you a valuable asset to any company. Our curriculum provides a unique perspective on economics because of the shared resources between the Department of Finance, Insurance, Real Estate and Law and the Department of Economics.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in economics.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Majors must complete at least 33 hours in economics, including:

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- ECON 3550 - Intermediate Micro-Theory
- ECON 3560 - Intermediate Macro-Theory
- ECON 4870 - Introduction to Econometrics

Plus 18 additional upper-division hours

18 additional upper-division hours above the 3000 level, including at least 9 hours from the following:

- ECON 4030 - Economic Cycles and Forecasting
- ECON 4100 - Comparative Economic Systems
- ECON 4140 - Managerial Economics
- ECON 4150 - Public Economics and Policy Analysis
- ECON 4290 - Labor Economics
- ECON 4420 - Open Economy Macroeconomics
- ECON 4450 - Game Theory
- ECON 4510 - History of Economic Thought
- ECON 4550 - Law and Economics
- ECON 4650 - Economics of Cities
- ECON 4875 - Empirical Linear Modeling

Additional requirements

To graduate with a BS in economics, a student must have a GPA of 2.5 in all economics courses (including transfer work). Students may retake UNT economics courses to improve the overall economics GPA. In computing the economics GPA, only the grade in the last repetition of a course will be included. BSECO students may not use ECON 3200 to count toward a major in economics.

A student must earn at least a B in ECON 1100 and ECON 1110 and at least a C in all economics courses above the 3000 level.

Other course requirements

Math requirement

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  both with a grade of C or better

Statistics requirement

- ECON 4630 - Data Analysis in Economics (with a grade of C or better)

Foreign language requirement options

Students may complete either of two options to satisfy the College of Liberal Arts and Social Sciences foreign language requirement:

Option 1

Must attain intermediate II level (2050) in a foreign language.

Option 2

6 hours of mathematics, in addition to MATH 1710 and MATH 1720, chosen from:

- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I
- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3610 - Real Analysis II
- MATH 3740 - Vector Calculus
- MATH 4060 - Foundations of Geometry
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4500 - Introduction to Topology
- MATH 4520 - Introduction to Functions of a Complex Variable
- MATH 4610 - Probability
- STAT 4650 - Statistics

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
ECON 1110 - Principles of Macroeconomics	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
MATH 1710 - Calculus I	4 hours	MATH 1720 - Calculus II	3 hours
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Life & Physical Science core	3 hours
Total	16 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
ECON 3550 - Intermediate Micro-Theory	3 hours	ECON 3560 - Intermediate Macro-Theory	3 hours
Additional Mathematics selection	3 hours	Additional Mathematics selection	3 hours
Life & Physical Science core	3 hours	Elective	3 hours
Language, Philosophy & Culture core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Economics Electives selection	3 hours	ECON 4630 - Data Analysis in Economics	3 hours
Economics Electives selection	3 hours	Economics Electives selection	3 hours
Economics 3000 or 4000 Level selection	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective - Advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ECON 4870 - Introduction to Econometrics	3 hours	Economics 3000 or 4000 Level selection	3 hours
Economics 3000 or 4000 Level selection	3 hours	Elective	3 hours
Elective	3 hours	Elective	2 hours
Elective	3 hours	Elective - Advanced	3 hours
Elective - Advanced	3 hours	Elective - Advanced	3 hours
Total	15 hours	Total	14 hours

Minors

Economics minor

Required courses

- ECON 1100 - Principles of Microeconomics (with a grade of C or better)
- ECON 1110 - Principles of Macroeconomics (with a grade of C or better)

Plus 12 hours

12 additional hours of upper-division courses (3000- or 4000-level) with a grade of C or better.

Undergraduate Academic Certificates

Behavioral Economics certificate

The Behavioral Economics certificate is ideal for psychology and other social science students who seek to complement their understanding of human behavior with economic principles. By bridging these disciplines, students gain a unique interdisciplinary perspective and develop a more comprehensive analytical toolkit to understand human behavior in economic contexts.

Requirements, 12 hours including 9 advanced

This certificate promotes students to explore specific applications of behavioral economics, from understanding decision-making biases in everyday contexts to analyzing how psychological and social factors influence more complex social issues.

Required

- ECON 1100 - Principles of Microeconomics
- ECON 3200 - Behavioral Economics for Non-Economics Majors

Choose one of the following:

- ECON 3000 - The Economics of Everything
- ECON 3150 - Economics of Discrimination
- ECON 4450 - Game Theory

Choose any additional 3000 or 4000-level economics course

Data Analytics in Economics certificate

The Data Analytics in Economics certificate is designed for students with a foundation in economics who seek to enhance their resumes with statistical and econometric skills, with a focus on direct hands-on experience using statistical software including Excel, R, EViews, and SAS.

Requirements

This certificate program provides essential training in data analysis and econometrics, emphasizing the application of statistical and econometric tools to analyze intriguing relationships in economics, business, and other real-world contexts. This certificate is ideal for those who have completed at least one Principles of Microeconomics or Macroeconomics course and wish to pursue employment opportunities where advanced data analytic skills are essential.

Required

- ECON 1100 - Principles of Microeconomics

  or

- ECON 1110 - Principles of Macroeconomics

Choose one of the following:

- DSCI 3710 - Business Statistics with Spreadsheets
- ECON 4630 - Data Analysis in Economics
- STAT 3680 - Applied Statistics

Choose two of the following:

- ECON 4030 - Economic Cycles and Forecasting
- ECON 4870 - Introduction to Econometrics
- ECON 4875 - Empirical Linear Modeling

Economics and Public Policy Analysis certificate

The Economics and Public Policy Analysis certificate is ideal for undergraduate students with a solid foundation in economics who want to make a real-world impact through evidence-based policymaking. By exploring how economic principles shape public policy, participants develop the skills to analyze and evaluate policy outcomes using economic theory and data.

Requirements, 12 hours including 9 advanced

This certificate builds on a student's foundational knowledge of economics, emphasizing real-world applications in public policy analysis. Two required courses will build a solid foundation in microeconomic analysis, while two electives, chosen from a range of specialized topics, allow students to tailor their studies to specific policy interests.

Required

- ECON 1100 - Principles of Microeconomics
- ECON 3550 - Intermediate Micro-Theory

Choose two of the following:

- ECON 3300 - Webonomics
- ECON 4150 - Public Economics and Policy Analysis
- ECON 4290 - Labor Economics
- ECON 4440 - Economics of Natural Resources and Environment
- ECON 4500 - The Economics of Sports
- ECON 4650 - Economics of Cities

Financial Economics certificate

The Financial Economics certificate is designed for students who desire to expand their knowledge of how economic principles and tools are applied to finance. The certificate is structured for students to become familiar with knowledge of how macroeconomic policy affects variables of interest in finance, such as interest rates, exchange rates, asset prices, and financial institutions.

Requirements, 15 hours including 9 advanced

This certificate includes coursework to deliver an understanding of how economic ideas affect the institutional landscape and regulatory framework of financial services firms. This certificate provides students with opportunities to develop practical skills in forecasting economic and financial variables. It also offers options to explore the impact of monetary and fiscal policies on the balance of payments, capital flows, and exchange rates.

Required

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- ECON 4020 - Money and Financial Institutions

Choose any two of the following:

- ECON 3050 - The Economics of Consumption
- ECON 3560 - Intermediate Macro-Theory
- ECON 4030 - Economic Cycles and Forecasting
- ECON 4140 - Managerial Economics
- ECON 4420 - Open Economy Macroeconomics

International Economics certificate

The International Economics certificate is designed for students who want to incorporate a global component to their degrees. Areas of study in this certificate include international trade and finance, development, comparative systems, and U.S./Mexico relations.

Requirements, 15 hours including 9 advanced

This certificate provides students with insights into global economic systems, trade relationships, and development challenges that shape our interconnected world. With the knowledge from these courses, students gain a competitive edge in understanding cross-border economic issues essential for careers in business, government, and international organizations.

Required

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics

Choose three of the following:

- ECON 4100 - Comparative Economic Systems
- ECON 4420 - Open Economy Macroeconomics
- ECON 4850 - International Trade
- ECON 4855 - U.S.-Mexico Economic Relations

Location Intelligence certificate

The location intelligence certificate at UNT brings together course work from both the departments of economics and geography and the environment to give students a solid technical and analytical foundation in this growing field. The 18 hours of required course work center on economic theory, locational decision-making, and software used to organize, analyze and present geospatial data.

Required courses

- ECON 1100 - Principles of Microeconomics
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming

Elective geography courses

Choose one of the following:

- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications

Elective economics courses

Choose two of the following:

- ECON 1110 - Principles of Macroeconomics
- ECON 3150 - Economics of Discrimination
- ECON 3200 - Behavioral Economics for Non-Economics Majors
- ECON 3550 - Intermediate Micro-Theory
- ECON 4440 - Economics of Natural Resources and Environment
- ECON 4650 - Economics of Cities
- ECON 4855 - U.S.-Mexico Economic Relations
- ECON 4870 - Introduction to Econometrics

Department of English

Main Departmental Office
Auditorium Building, Room 112

Mailing address:
1155 Union Circle #311307
Denton, TX 76203-5017
940-565-2050
Fax: 940-565-4355
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Undergraduate Advising Office
Auditorium Building, Room 114

Nicole Smith, Chair

Faculty

The study of English language and literature provides students with an intellectual foundation that will permanently enrich their lives and prepare them for a wide variety of professional paths. Our department features courses in British, American, and anglophone literature; in the art of poetry, fiction, and creative non-fiction; and in rhetoric and composition. All of these classes foster intellectual independence and help students to develop the skills of thinking critically, reading deeply, and writing clearly.

The English major is widely recognized as a core liberal arts degree, preparing students not only for graduate study in literature or creative writing, but for a range of careers – including teaching, the law, publishing, and business – in which the skills of analytical thinking and effective communication are at a premium. Whatever path they choose, English majors (and minors) will also have gained something invaluable: a fuller sense of the possibilities of life, expanded intellectual and imaginative horizons, and greater insight into the workings of human nature.

At all levels, our class sizes are restricted in order to provide opportunities for collaboration with other students and close interaction with professors. Our faculty specializes in a variety of literary traditions, critical methodologies, and genres of creative writing, and are devoted to training students in the most effective strategies for reading and writing.

Programs of study

Programs offered by the department, including concentrations under the English major, are listed below.

Endorsement in English as a Second Language

See the certification advisor in the College of Education for details.

Majors

English with a concentration in Creative Writing, BA

The English department plays a pivotal role in developing a student's writing and critical analysis skills. While pursuing the Bachelor of Arts with a major in English, you can choose from concentrations in literature, writing and rhetoric, creative writing and language arts with secondary teacher certification.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements, 45 hours

Foundation courses, 12 hours

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II
- ENGL 3000 - Introduction to Literary Analysis

One of the following courses

- ENGL 2321 - British Literature
- ENGL 2326 - American Literature
- ENGL 2331 - World Literature
- ENGL 2341 - Forms of Literature
- ENGL 2351 - Mexican American Literature

Creative writing concentration, 18 hours

Required courses, 12 hours

Note: Majors in English with a concentration in creative writing must take ENGL 2100 before enrolling in an beginning workshop, and a beginning course in genre is a prerequisite for advanced in same genre. Transfer students should see the English Faculty Advisor for approved ENGL 2100 substitutes.

- ENGL 2100 - Introduction to Creative Writing
- ENGL 3140 - Beginning Fiction Writing
- ENGL 3150 - Beginning Poetry Writing
- ENGL 3160 - Beginning Creative Nonfiction Writing

Advanced workshops, 6 hours

- ENGL 4100 - Advanced Fiction Writing
- ENGL 4110 - Advanced Poetry Writing
- ENGL 4120 - Advanced Creative Nonfiction Writing

Additional requirements, 15 hours

Two courses from the following historical or genre surveys, 6 hours

- ENGL 3360 - Classical Literature and Mythology
- ENGL 3370 - The Bible as Literature
- ENGL 3430 - British Literature to 1780
- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3450 - Short Story
- ENGL 3455 - Dramatic Literature
- ENGL 3465 - The Literary Essay
- ENGL 3470 - Poetry
- ENGL 3830 - American Literature to 1870
- ENGL 3840 - American Literature 1870 to the Present
- ENGL 3920 - Ethnic American Literatures
- ENGL 3924 - Women's Literature

One single or dual author course, 3 hours

- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4440 - Milton
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4460 - Whitman and Dickinson

Two additional courses, each from different categories, 6 hours

Note: Courses that appear in more than one category may only be used to satisfy one category; a course used to satisfy a requirement listed above may not also be used to satisfy a category listed below.

Critical theory, writing studies and game studies

- ENGL 4130 - Editing and Publishing
- ENGL 4140 - Advanced Narrative Design for Gaming
- ENGL 4145 - Worldbuilding and Mythopoesis
- ENGL 4150 - Literary Criticism
- ENGL 4195 - Advanced Grammar and Usage
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4205 - Multimodal Writing and Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities
- ENGL 4225 - Rhetorical Play: Writing and Rhetoric in Gaming
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- ENGL 4240 - Writing Center Theory and Practice
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4680 - Game Narratives as Literature

Additional courses may apply. See faculty advisor for approvals.

Race, ethnicity and indigeneity

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4660 - Literature and the Holocaust
- ENGL 4841 - Studies in Modern Irish Literature

Additional courses may apply. See faculty advisor for approvals.

Gender, sexuality and the body

- ENGL 3924 - Women's Literature
- ENGL 4405 - Medieval Women Writers
- ENGL 4630 - Studies in Literature and Medicine
- ENGL 4670 - Gender and Sexuality in Literature

Additional courses may apply. See faculty advisor for approvals.

Early historical period: literature and culture from beginnings to 1800

- ENGL 4405 - Medieval Women Writers
- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4431 - Studies in Medieval Literature
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4433 - Studies in Restoration and 18th Century British Literature
- ENGL 4440 - Milton
- ENGL 4830 - Studies in the Literature of the Colonial Americas
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas

Additional courses may apply. See faculty advisor for approvals.

Middle historical period: literature and culture from 1800-1950

- ENGL 4434 - Studies in Romantic Literature
- ENGL 4435 - Studies in Victorian Literature
- ENGL 4460 - Whitman and Dickinson
- ENGL 4490 - American Realism
- ENGL 4832 - Studies in 19th-Century American Literature
- ENGL 4841 - Studies in Modern Irish Literature
- ENGL 4842 - Studies in British Modernism
- ENGL 4844 - Studies in American Modernism

Additional courses may apply. See faculty advisor for approvals.

Late historical period: literature and culture from 1950 to the present

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4610 - Children's and Young Adult Literature
- ENGL 4660 - Literature and the Holocaust
- ENGL 4665 - Studies in Science Fiction
- ENGL 4680 - Game Narratives as Literature
- ENGL 4845 - Studies in Contemporary American Literature

Additional courses may apply. See faculty advisor for approvals.

Other course requirements

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

A minimum grade of C in each is required for all English courses counting toward the Bachelor of Arts degree in English and a concentration in creative writing.

A minimum cumulative GPA of 2.5 for all English courses is required for graduation.

English with a concentration in Language Arts, BA

The English department plays a pivotal role in developing a student's writing and critical analysis skills. While pursuing the Bachelor of Arts with a major in English, you can choose from concentrations in literature, writing and rhetoric, creative writing, and language arts with secondary teacher certification.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements, 45 hours

Foundation courses, 15 hours

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II
- ENGL 3000 - Introduction to Literary Analysis

Two of the following courses, 6 hours

- ENGL 2100 - Introduction to Creative Writing
- ENGL 2321 - British Literature
- ENGL 2326 - American Literature
- ENGL 2331 - World Literature
- ENGL 2341 - Forms of Literature
- ENGL 2351 - Mexican American Literature

Language arts concentration, 21 hours

Also satisfies teacher certification.

Required courses, 12 hours

- ENGL 3110 - Writing and Rhetoric in the Humanities
- ENGL 4195 - Advanced Grammar and Usage
- ENGL 4430 - Shakespeare
- ENGL 4700 - Instruction and Assessment in English Language Arts

Three courses from the following historical or genre surveys, 9 hours

- ENGL 3360 - Classical Literature and Mythology
- ENGL 3370 - The Bible as Literature
- ENGL 3430 - British Literature to 1780
- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3450 - Short Story
- ENGL 3455 - Dramatic Literature
- ENGL 3465 - The Literary Essay
- ENGL 3470 - Poetry
- ENGL 3830 - American Literature to 1870
- ENGL 3840 - American Literature 1870 to the Present
- ENGL 3920 - Ethnic American Literatures
- ENGL 3924 - Women's Literature

Additional requirements, 9 hours

Three additional courses, each from different categories.

Note: Courses that appear in more than one category may only be used to satisfy one category; a course used to satisfy a requirement listed above may not also be used to satisfy a category listed below.

Critical theory, writing studies and game studies

- ENGL 4130 - Editing and Publishing
- ENGL 4140 - Advanced Narrative Design for Gaming
- ENGL 4145 - Worldbuilding and Mythopoesis
- ENGL 4150 - Literary Criticism
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4205 - Multimodal Writing and Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities
- ENGL 4225 - Rhetorical Play: Writing and Rhetoric in Gaming
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- ENGL 4240 - Writing Center Theory and Practice
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4680 - Game Narratives as Literature

Additional courses may apply. See faculty advisor for approvals.

Race, ethnicity and indigeneity

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4660 - Literature and the Holocaust
- ENGL 4841 - Studies in Modern Irish Literature

Additional courses may apply. See faculty advisor for approvals.

Gender, sexuality and the body

- ENGL 3924 - Women's Literature
- ENGL 4405 - Medieval Women Writers
- ENGL 4630 - Studies in Literature and Medicine
- ENGL 4670 - Gender and Sexuality in Literature

Additional courses may apply. See faculty advisor for approvals.

Early historical period: literature and culture from beginnings to 1800

- ENGL 4405 - Medieval Women Writers
- ENGL 4410 - Chaucer
- ENGL 4431 - Studies in Medieval Literature
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4433 - Studies in Restoration and 18th Century British Literature

- ENGL 4440 - Milton
- ENGL 4830 - Studies in the Literature of the Colonial Americas
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas

Additional courses may apply. See faculty advisor for approvals.

Middle historical period: literature and culture from 1800-1950

- ENGL 4434 - Studies in Romantic Literature
- ENGL 4435 - Studies in Victorian Literature
- ENGL 4460 - Whitman and Dickinson
- ENGL 4490 - American Realism
- ENGL 4832 - Studies in 19th-Century American Literature
- ENGL 4841 - Studies in Modern Irish Literature
- ENGL 4842 - Studies in British Modernism
- ENGL 4844 - Studies in American Modernism

Additional courses may apply. See faculty advisor for approvals.

Late historical period: literature and culture from 1950 to the present

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4610 - Children's and Young Adult Literature
- ENGL 4660 - Literature and the Holocaust
- ENGL 4665 - Studies in Science Fiction
- ENGL 4680 - Game Narratives as Literature
- ENGL 4845 - Studies in Contemporary American Literature

Additional courses may apply. See faculty advisor for approvals.

Additional courses required for teacher certification, 15 hours

- COMM 1010 - Introduction to Communication
- EDBE 2050 - Teaching Multilingual Students
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- JOUR 1210 - Mass Communication and Society
- LING 3060 - Principles of Language Study

Other course requirements

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

A minimum grade of C in each is required for all English/linguistics courses counting toward the Bachelor of Arts degree with a major in English and a concentration in language arts.

A minimum cumulative GPA of 2.5 for all English/linguistics courses is required for graduation.

Students must also complete teacher certification requirements.

English with a concentration in Literature, BA

The English department plays a pivotal role in developing a student's writing and critical analysis skills. While pursuing the Bachelor of Arts with a major in English, you can choose from concentrations in literature, writing and rhetoric, creative writing and language arts with secondary teacher certification.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements, 45 hours

Foundation courses, 15 hours

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II
- ENGL 3000 - Introduction to Literary Analysis

Two of the following courses, 6 hours

- ENGL 2100 - Introduction to Creative Writing
- ENGL 2321 - British Literature
- ENGL 2326 - American Literature
- ENGL 2331 - World Literature
- ENGL 2341 - Forms of Literature
- ENGL 2351 - Mexican American Literature

Literature concentration, 27 hours

Two courses from the following historical or genre surveys, 6 hours

- ENGL 3360 - Classical Literature and Mythology
- ENGL 3370 - The Bible as Literature
- ENGL 3430 - British Literature to 1780
- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3450 - Short Story
- ENGL 3455 - Dramatic Literature
- ENGL 3465 - The Literary Essay
- ENGL 3470 - Poetry
- ENGL 3830 - American Literature to 1870
- ENGL 3840 - American Literature 1870 to the Present
- ENGL 3920 - Ethnic American Literatures
- ENGL 3924 - Women's Literature

One single or dual author course, 3 hours

- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4440 - Milton
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4460 - Whitman and Dickinson

One course each from the following six categories, 18 hours

Note: Courses that appear in more than one category may only be used to satisfy one category; a course used to satisfy a requirement listed above may not also be used to satisfy a category listed below.

Critical theory, writing studies and game studies

- ENGL 4130 - Editing and Publishing
- ENGL 4140 - Advanced Narrative Design for Gaming
- ENGL 4145 - Worldbuilding and Mythopoesis
- ENGL 4150 - Literary Criticism
- ENGL 4195 - Advanced Grammar and Usage
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4205 - Multimodal Writing and Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities
- ENGL 4225 - Rhetorical Play: Writing and Rhetoric in Gaming
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- ENGL 4240 - Writing Center Theory and Practice
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4680 - Game Narratives as Literature

Additional courses may apply. See faculty advisor for approvals.

Race, ethnicity and indigeneity

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4660 - Literature and the Holocaust
- ENGL 4841 - Studies in Modern Irish Literature

Additional courses may apply. See faculty advisor for approvals.

Gender, sexuality and the body

- ENGL 3924 - Women's Literature
- ENGL 4405 - Medieval Women Writers
- ENGL 4630 - Studies in Literature and Medicine
- ENGL 4670 - Gender and Sexuality in Literature

Additional courses may apply. See faculty advisor for approvals.

Early historical period: literature and culture from beginnings to 1800

- ENGL 4405 - Medieval Women Writers
- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4431 - Studies in Medieval Literature
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4433 - Studies in Restoration and 18th Century British Literature
- ENGL 4440 - Milton
- ENGL 4830 - Studies in the Literature of the Colonial Americas
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas

Additional courses may apply. See faculty advisor for approvals.

Middle historical period: literature and culture from 1800-1950

- ENGL 4434 - Studies in Romantic Literature
- ENGL 4435 - Studies in Victorian Literature
- ENGL 4460 - Whitman and Dickinson
- ENGL 4490 - American Realism
- ENGL 4832 - Studies in 19th-Century American Literature
- ENGL 4841 - Studies in Modern Irish Literature
- ENGL 4842 - Studies in British Modernism
- ENGL 4844 - Studies in American Modernism

Additional courses may apply. See faculty advisor for approvals.

Late historical period: literature and culture from 1950 to the present

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4610 - Children's and Young Adult Literature
- ENGL 4660 - Literature and the Holocaust
- ENGL 4665 - Studies in Science Fiction
- ENGL 4680 - Game Narratives as Literature
- ENGL 4845 - Studies in Contemporary American Literature

Additional courses may apply. See faculty advisor for approvals.

Additional requirements, 3 hours

One additional 4000-level course from any of the above listed categories.

Other course requirements

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

A minimum grade of C is required in all English courses counting toward the Bachelor of Arts degree with a major in English and a concentration in literature.

A minimum cumulative GPA of 2.5 for all English courses is required for graduation.

English with a concentration in Writing and Rhetoric, BA

The English department plays a pivotal role in developing a student's writing and critical analysis skills. While pursuing the Bachelor of Arts with a major in English, you can choose from concentrations in literature, writing and rhetoric, creative writing and language arts with secondary teacher certification.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements, 45 hours

Foundation courses, 15 hours

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II
- ENGL 3000 - Introduction to Literary Analysis

2000-level courses, 6 hours

Take two of the following courses:

- ENGL 2100 - Introduction to Creative Writing
- ENGL 2321 - British Literature
- ENGL 2326 - American Literature
- ENGL 2331 - World Literature
- ENGL 2341 - Forms of Literature
- ENGL 2351 - Mexican American Literature

Writing and Rhetoric concentration, 18 hours

Required courses, 9 hours

- ENGL 3110 - Writing and Rhetoric in the Humanities
- ENGL 3200 - Rhetorical History and Historiography

One course from the following

- ENGL 3210 - Studies in Writing
- ENGL 3225 - Games, Play, and Stories
- ENGL 3500 - Beginning Game Writing Workshop: Storytelling Through Narrative Design

Three courses from the following, 9 hours

- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4205 - Multimodal Writing and Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities
- ENGL 4225 - Rhetorical Play: Writing and Rhetoric in Gaming
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- ENGL 4240 - Writing Center Theory and Practice

Additional requirements, 12 hours

Four additional courses, each from different categories.

Note: Courses that appear in more than one category may only be used to satisfy one category; a course used to satisfy a requirement listed above may not also be used to satisfy a category listed below.

Critical theory, writing studies and game studies

- ENGL 4130 - Editing and Publishing
- ENGL 4140 - Advanced Narrative Design for Gaming
- ENGL 4145 - Worldbuilding and Mythopoesis
- ENGL 4150 - Literary Criticism
- ENGL 4195 - Advanced Grammar and Usage
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4205 - Multimodal Writing and Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- ENGL 4240 - Writing Center Theory and Practice
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4680 - Game Narratives as Literature

Additional courses may apply. See faculty advisor for approvals.

Race, ethnicity and indigeneity

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4245 - Postcolonial Literature and Theory
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- ENGL 4660 - Literature and the Holocaust
- ENGL 4841 - Studies in Modern Irish Literature

Additional courses may apply. See faculty advisor for approvals.

Gender, sexuality and the body

- ENGL 3924 - Women's Literature
- ENGL 4405 - Medieval Women Writers
- ENGL 4630 - Studies in Literature and Medicine
- ENGL 4670 - Gender and Sexuality in Literature

Additional courses may apply. See faculty advisor for approvals.

Early historical period: literature and culture from beginnings to 1800

- ENGL 4405 - Medieval Women Writers
- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4431 - Studies in Medieval Literature
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4433 - Studies in Restoration and 18th Century British Literature
- ENGL 4440 - Milton

- ENGL 4830 - Studies in the Literature of the Colonial Americas
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas

Additional courses may apply. See faculty advisor for approvals.

Middle historical period: literature and culture from 1800-1950

- ENGL 4434 - Studies in Romantic Literature
- ENGL 4435 - Studies in Victorian Literature
- ENGL 4460 - Whitman and Dickinson
- ENGL 4490 - American Realism
- ENGL 4832 - Studies in 19th-Century American Literature
- ENGL 4841 - Studies in Modern Irish Literature
- ENGL 4842 - Studies in British Modernism
- ENGL 4844 - Studies in American Modernism

Additional courses may apply. See faculty advisor for approvals.

Late historical period: literature and culture from 1950 to the present

- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4610 - Children's and Young Adult Literature
- ENGL 4660 - Literature and the Holocaust
- ENGL 4665 - Studies in Science Fiction
- ENGL 4680 - Game Narratives as Literature
- ENGL 4845 - Studies in Contemporary American Literature

Additional courses may apply. See faculty advisor for approvals.

Other course requirements

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

A minimum grade of C in each is required for all English courses counting toward the Bachelor of Arts degree with a major in English and a concentration in writing and rhetoric.

A minimum cumulative GPA of 2.5 for all English courses is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Mathematics core	3 hours	Creative Arts core	3 hours
Social and Behavioral Sciences core	3 hours	Life and Physical Sciences core	3 hours
CLASS Foreign Language-elementary	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ENGL 3000 - Introduction to Literary Analysis	3 hours	ENGL 3110 - Writing and Rhetoric in the Humanities	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Life and Physical Sciences core	3 hours	CLASS Foreign Language-intermediate	3 hours
CLASS Foreign Language-intermediate	3 hours	ENGL 2000-level course selection	3 hours
ENGL 2000-level course selection	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ENGL 3200 - Rhetorical History and Historiography	3 hours	English 4000-level writing course	3 hours
ENGL 3210 - Studies in Writing	3 hours	English 4000-level writing course	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
English 4000-level writing course	3 hours	English 4000-level writing course	3 hours
English 4000-level category course	3 hours	English 4000-level category course	3 hours
English 4000-level category course	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

English with a concentration in Literature, BA with grad track option leading to English, MA

The Department of English offers a grad track pathway in which students complete a Bachelor's Degree with a concentration in literature in four years, and then go on to earn a master's degree in literature in the fifth year. This accelerated program, which is cost-effective and time-saving, is designed for exceptional, highly motivated majors who have maintained at least a 3.5 GPA. Students must apply to this program in their junior year. Admitted students will take twelve graduate hours during their senior year, which can count both toward their bachelor's and master's degrees, as permitted by university rules.

Admission requirements

To be eligible for acceptance, students must have completed 75 undergraduate hours, including the following courses:

- ENGL 3000 - Introduction to Literary Analysis
- ENGL 3430 - British Literature to 1780 OR ENGL 3830 - American Literature to 1870
- ENGL 3440 - British Anglophone Literature 1780 to the Present OR ENGL 3840 - American Literature 1870 to the Present

In addition to completing the required courses, students will need to submit:

- One or more writing samples;
- A statement of purpose;
- A curriculum vita or resume;
- Two letters of recommendation testifying to student's ability to do graduate-level work; and
- An application to the Toulouse Graduate School.

GRE scores are not required. Students in the UNT Honors Program and students who satisfy the requirements are guaranteed admission to the program and need not provide letters of recommendation.

Program policies

Undergraduate students who have been accepted to a grad track pathway option must complete their bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they were admitted to the accelerated program in order to continue into the graduate program.

Admitted students will take twelve graduate hours during their senior year, which will also count toward their BA as permitted by university rules.

Requirements

In lieu of 4 advanced undergraduate electives in the fourth year, students for the MA in literature will take 3 5000-level graduate literature classes and ENGL 5760 in their senior year. The literature classes should be chosen from the following list with an eye to fulfilling period distribution requirements for the BA and the MA.

- ENGL 5000 - Old English
- ENGL 5010 - Beowulf
- ENGL 5020 - Chaucer: Major Works
- ENGL 5030 - Studies in Medieval Literature and Culture
- ENGL 5100 - Studies in British Literature and Culture of the Romantic Period
- ENGL 5200 - Studies in British Literature and Culture of the Victorian Period
- ENGL 5250 - Studies in British Literature and Culture of the Eighteenth Century
- ENGL 5260 - Studies in Nineteenth-Century British Literature and Culture
- ENGL 5310 - Studies in Rhetorical Theory
- ENGL 5320 - Studies in Composition Theory
- ENGL 5400 - Studies in Shakespeare
- ENGL 5410 - Studies in the British Renaissance
- ENGL 5490 - Studies in the Twentieth-Century British Novel
- ENGL 5500 - Studies in American Literature and Culture from the Beginning to 1800
- ENGL 5510 - Studies in American Literature and Culture, 1800 to 1865
- ENGL 5515 - Studies in the American Renaissance
- ENGL 5520 - Studies in American Literature and Culture, 1865 to 1914
- ENGL 5525 - Studies in American Realism
- ENGL 5530 - Studies in American Literature and Culture, 1914 to the Present
- ENGL 5540 - Studies in Twentieth-Century British or Irish Literature and Culture
- ENGL 5550 - Studies in the Teaching of Composition
- ENGL 5560 - Studies in the Teaching of Literature
- ENGL 5600 - Studies in European Literature and Culture
- ENGL 5605 - Studies in the Literature and Culture of the Colonial Americas
- ENGL 5610 - Studies in Early African-American Literature and Culture
- ENGL 5620 - Studies in Contemporary African-American Literature and Culture
- ENGL 5635 - Mexican-American Literature and Theory Before 1954
- ENGL 5640 - Mexican-American Literature and Theory After 1954
- ENGL 5650 - United States Ethnic Literature and Culture
- ENGL 5680 - Studies in Global Literature and Culture
- ENGL 5720 - Literature and Science
- ENGL 5730 - Literature and the Environment
- ENGL 5750 - Methods of Historical Research
- ENGL 5760 - Scholarly and Critical Writing
- ENGL 5800 - Studies in Literary Genres
- ENGL 5810 - Survey of Critical Theory

- ENGL 5890 - Studies in the American Novel, 1914 to the Present
- ENGL 5900 - Special Problems
- ENGL 5910 - Special Problems

All remaining courses for the English with a concentration in Literature, BA must be completed.

Minors

English minor

The minor requires a total of 21 hours, including 9 advanced.

Special problems courses

These courses may count toward the minor only with the written consent of the department chair:

- ENGL 4900 - Special Problems
- ENGL 4910 - Special Problems

Secondary Teacher Certification

English Language Arts and Reading teacher certification

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in English language arts and reading. Upon completion of this program, students will be prepared to sit for the certification examinations in English language arts and reading.

Requirements

Completion of the requirements for the Language Arts concentration under the major in English.

Education courses

Students must complete the required 21 hours in upper-level education courses.

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Additional requirements

See English with a concentration in Language Arts, BA for additional course work and GPA requirements.

Students must meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Undergraduate Academic Certificates

American Studies certificate

To earn a certificate in American studies, students must complete 12 credit hours of applicable courses at UNT (Denton campus) with a grade of C or above. There is great flexibility in how students may choose to configure their particular concentration within American studies. Of the 12 hours, at least 9 hours must be at the 3000 and 4000 levels, at least two courses must be outside the student's major discipline, at least one course must be in English, and at least one course must be in history (though the Core Curriculum classes in American history do not count).

The following courses may be applied toward the American studies certificate. Designated sections of other courses may also count, subject to approval by the certificate advisor.

Anthropology

- ANTH 3101 - Issues in Contemporary American Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3120 - Indigenous Cultures of the Southwest
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.

Art education and art history

- ARTH 4816 - American Art
- ARTH 4817 - Topics in American Art

Criminal justice

- CJUS 2100 - Crime and Justice in the United States

Dance and theatre

- DANC 3800 - History of Concert Dance in the U.S.: 1900–Present
- THEA 4370 - Contemporary Latinx Theatre

English

- ENGL 3830 - American Literature to 1870
- ENGL 3840 - American Literature 1870 to the Present
- ENGL 3920 - Ethnic American Literatures
- ENGL 4220 - Contemporary North American Indigenous Literature
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4260 - African American Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4400 - American Fiction
- ENGL 4490 - American Realism
- ENGL 4810 - Topics in American Literature
- ENGL 4825 - The Literature of Texas and the Southwest
- ENGL 4830 - Studies in the Literature of the Colonial Americas
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas
- ENGL 4832 - Studies in 19th-Century American Literature
- ENGL 4844 - Studies in American Modernism
- ENGL 4845 - Studies in Contemporary American Literature

Designated sections of

- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4650 - Literature and the Environment
- ENGL 4850 - Literature in Context

History

- HIST 3061 - Women in the United States to 1900
- HIST 3062 - Women in the United States Since 1900
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 3480 - Colonial America
- HIST 3495 - United States Food History
- HIST 3850 - The Early National Period of the United States, 1789–1848
- HIST 4261 - Topics in United States History
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4451 - African American History During Segregation Era
- HIST 4475 - Jewish Women in Modern America
- HIST 4490 - The American Revolution – Causes and Consequences
- HIST 4830 - Rise and Fall of the Slave South
- HIST 4840 - Making of the Modern South
- HIST 4860 - The Civil War and Reconstruction
- HIST 4870 - Making of the Modern United States, 1877–1929
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.

Geography

- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability

Journalism

- JOUR 4820 - History of American Media

Media arts

- MRTS 3465 - American Film History
- MRTS 3450 - U.S. Radio History

Music history, theory and ethnomusicology

- MUET 3060 - African-American Music
- MUMH 2060 - History of Rock
- MUMH 4000 - Seminar in Music History

Jazz studies

- MUJS 3070 - History of Jazz

Philosophy

- PHIL 3140 - Religion and American Society
- PHIL 3360 - American Philosophy

Political science

- PSCI 3010 - American State and Local Government
- PSCI 3100 - Topics in American Government
- PSCI 3160 - Mass Media in American Politics
- PSCI 3200 - The American Legal System
- PSCI 3210 - The U.S. Supreme Court
- PSCI 4140 - The Presidency
- PSCI 4150 - Religion and Politics in the United States
- PSCI 4320 - American Political Theory
- PSCI 4830 - American Foreign Policy

Women's and gender studies

Medieval and Renaissance Studies certificate

The medieval and Renaissance studies certificate is an undergraduate academic certificate that enables students to acquire proficiency in European medieval and Renaissance cultures and societies, as well as comparable cultural developments in non-western countries. The required course work in medieval and Renaissance studies promotes both inter- and trans-disciplinary work, which in turn provides the tools necessary for nuanced examination of not only a distant society but also, in its reflection, of our own.

The medieval and Renaissance studies certificate is open to all majors. It is administered by the Department of English in the College of Liberal Arts and Social Sciences. Students are strongly encouraged to achieve proficiency in a foreign language important to medieval and/or Renaissance Europe through course work or examination.

Requirements

To earn a certificate in medieval and Renaissance studies, students must complete 12 hours of courses at UNT with a grade of C or above. Of the 12 hours, 9 hours must be at 3000 and 4000 levels, two courses must be outside the student's major discipline, one course must be in medieval studies and one course must be in Renaissance studies.

Courses should be chosen from the areas listed below. Other courses may apply, subject to approval by the certificate advisor.

Art and music

- ARTH 4804 - Medieval Art
- ARTH 4805 - Topics in Medieval Art
- ARTH 4806 - Topics in Renaissance Art
- MUMH 3500 - Music History and Literature to 1750

English

- ENGL 3370 - The Bible as Literature
- ENGL 3430 - British Literature to 1780
- ENGL 4405 - Medieval Women Writers
- ENGL 4410 - Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4431 - Studies in Medieval Literature
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4440 - Milton

History

- HIST 3450 - Islam and its Empires
- HIST 3762 - Rome: The Biography of a City

- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4220 - The Renaissance
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe
- HIST 4310 - Gender and Sexuality in Early Modern Europe
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present

Philosophy and religion studies

- PHIL 2070 - World Religions
- PHIL 3120 - Social and Political Philosophy
- PHIL 3310 - Ancient Greek Philosophy
- PHIL 3320 - Medieval Philosophy
- PHIL 3540 - Judaism and Philosophy

World languages

- WLLC 3700 - Classical Mythology

Additional information

Students successfully completing the above requirements will file for the medieval and Renaissance certificate in the English department, and the certificate will be posted to their UNT transcript. The Medieval and Renaissance Colloquium will also honor students graduating with the medieval and Renaissance certificate with an annual reception in the spring semester.

Department of Geography and the Environment

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Environmental Education, Science and Technology Building, Room 210

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Pinliang Dong, Chair

Faculty

Geography is both an academic and an applied field, and our graduates enjoy highly successful careers in diverse parts of the job market. Majors are prepared for a broad range of employment, including geographic information systems, regional and urban planning, retail and industrial site location analysis, transportation planning, parks and recreation planning, housing and community development, land and water resources management, environmental consulting and regulatory work, and land surveying. Completion of the department's programs also prepares students for graduate course work in geography and environmental science.

The Department of Geography and the Environment offers courses for students majoring in geography or other fields. Students in the colleges of liberal arts and social sciences, business, education, engineering, information, journalism, public affairs and community service, and merchandising, hospitality and tourism will find that geography provides excellent support for their majors. Students majoring in any field may minor in geography or geology (all offered through this department); complete courses to fill core requirements; obtain the department's certificate in geographic information systems, sustainability, GeoPhoto, geospatial analytics, water resources, or health and medical geography or take courses for general interest. Students may elect an optional concentration in environmental studies or earth systems in the Bachelor of Science degree in geography. Students may also elect the Bachelor of Science in Geographic Information Systems + Computer Science (GIS+CS) program.

Geography courses are divided into three subfields: human geography, earth science and geospatial technology. Human geography involves the study of the organization of human activity (particularly, the economic, socio-political and cultural dimensions) across space as they affect and in turn respond to the world about us. Earth science courses explore physical processes that operate inside the earth, at its surface and in the atmosphere, and interactions between humans and the physical environment. The earth science courses are under both physical geography and geology headings. Geospatial technology courses include geographic information system (GIS). GIS programming, remote sensing (including LiDAR), and digital image processing.

Students planning to transfer to another institution to pursue a geology major should consult with the undergraduate advisor.

Programs of study

Programs offered by the department are listed below. Through course selection, students may elect to emphasize earth science, human geography or techniques.

Majors

Geographic Information Systems and Computer Science, BS

A Bachelor of Science degree in Geographic Information Systems + Computer Science (GIS+CS) enables understanding of geospatial processes as well as process-based/algorithmic approaches to problem solving. The changing nature of geospatial data (e.g. location-based data) and associated analytical methods (e.g. machine

learning) requires professionals who can blend these two approaches – i.e. develop processes and algorithms while understanding the larger context within which they occur. The GIS+CS degree provides this blend but also offers two tracks – Computer Science (CS) or Information Technology (IT). The CS Track focuses on machine learning and artificial intelligence. The IT Track focuses on construction, maintenance and management of computational infrastructure and IT project management.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements, 46 hours

Computer science, 13 hours

- CSCE 1030 - Computer Science I

  or
- CSCE 1035 - Computer Programming I

- CSCE 1040 - Computer Science II

  or
- CSCE 1045 - Computer Programming II

- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures

Geographic information systems, 18 hours

- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming
- GEOG 4570 - Special Topics in GIS
- GEOG 4590 - Advanced GIS Programming

Plus 3 hours selected from:

- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4580 - GIS in Health

Other program requirements

An additional 15 hours are required in one of the tracks listed below. Blending courses from tracks requires advisor approval.

Computer science, 15 hours

- CSCE 3214 - Software Development for Artificial Intelligence

  or
- CSCE 4205 - Introduction to Machine Learning

Plus 12 hours selected from:

- CSCE 3214 - Software Development for Artificial Intelligence
- CSCE 3850 - Introduction to Computational Life Science
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4380 - Data Mining
- CSCE 4810 - Bioinformatics Algorithms
- CSCE 4820 - Advances in Bioinformatics

Information technology, 15 hours

- CSCE 3055 - IT Project Management
- CSCE 3615 - Enterprise Systems Architecture and Design

Plus 9 hours selected from:

- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3550 - Foundations of Cybersecurity
- CSCE 3600 - Principles of Systems Programming
- CSCE 3850 - Introduction to Computational Life Science
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4810 - Bioinformatics Algorithms
- CSCE 4820 - Advances in Bioinformatics

Electives

Students should consult with their academic advisor on courses for electives or undergraduate certificates that enhance their career options.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1100 - Algebra	3 hours	GEOG 1710 - Earth Science	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	MATH 1650 - Pre-Calculus	5 hours
Communication core	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Creative Arts core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Component Area Option A core	3 hours
Total	15 hours	Total	17 hours

Year 2

Semester 1		Semester 2	
CSCE 1035 - Computer Programming I	3 hours	CSCE 1045 - Computer Programming II	3 hours
GEOG 1200 - Global Societies	3 hours	GEOG 3500 - Introduction to Geographic Information Systems	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Language, Philosophy and Culture core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CSCE 2100 - Foundations of Computing	3 hours	GEOG 4560 - Introduction to Python Programming	3 hours
CSCE 2110 - Foundations of Data Structures	3 hours	Computer Science track selection	3 hours
GEOG 4550 - Advanced Geographic Information Systems	3 hours	GIS selection	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
GEOG 4570 - Special Topics in GIS	3 hours	GEOG 4590 - Advanced GIS Programming	3 hours
Computer Science track selection	3 hours	Computer Science track selection	3 hours
Computer Science track selection	3 hours	Computer Science track selection	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	1 hour
Total	15 hours	Total	13 hours

Geography with a concentration in Earth Systems, BS

A Bachelor of Science with a major in geography and a concentration in earth systems focuses on the Earth's natural systems and how they affect people and society. With this concentration, students will develop skills to study earth processes.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding foreign language).

Major requirements, 36 hours

A minimum grade of C is required in all major courses to graduate with a major in this department.

Required courses, 12 hours

- GEOG 2110 - Foundations of Geographic Research
- GEOG 2170 - Culture, Environment and Society
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 4800 - Geography Capstone

Earth systems concentration, 24 hours

Earth science

Choose five courses, at least one in each area. (Courses can only count for one area.)

Geomorphology

- GEOG 4350 - Geomorphology
- GEOL 3010 - Environmental Geology
- GEOL 3020 - Historical Geology
- GEOL 3030 - Earthquakes and Volcanoes

Climatology

- GEOG 3800 - Weather and Climate
- GEOG 4260 - Oceanography

Hydrology

- GEOG 4260 - Oceanography
- GEOG 4750 - Surface Water Hydrology
- GEOL 4850 - Introduction to Groundwater Hydrology

Biogeography

- GEOG 3420 - Applied Biogeography
- GEOG 4710 - Ecosystems: Structure, Function and Services

Techniques

Choose two courses:

- GEOG 3050 - Introduction to Cartography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4170 - Field Methods and Mapping
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4525 - Using LiDAR Data in GIS
- GEOG 4530 - Remote Sensing and Digital Image Processing
- GEOG 4550 - Advanced Geographic Information Systems

Human geography

Choose one course.

- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3200 - Sustainability
- GEOG 4420 - Capitalism, Nature and Climate Change

Other course requirements

Mathematics

- MATH 1680 - Elementary Probability and Statistics (or equivalent)

Science

- GEOG 1710 - Earth Science

One additional science course

- BIOL 1132 - Environmental Science
- BIOL 2140 - Principles of Ecology
- BIOL 2241 - Biology of Higher Plants
- BIOL 2251 - Biodiversity and Conservation of Animals
- CHEM 1360 - Context of Chemistry
- CHEM 1410 - General Chemistry I for Science Majors (or equivalent)
- PHYS 1315 - Introduction to the World of Physics
- PHYS 1410 - General Physics I (or equivalent)

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
GEOG 1710 - Earth Science	3 hours	GEOG 2110 - Foundations of Geographic Research	3 hours
GEOG 2170 - Culture, Environment and Society	3 hours	GEOG 2180 - Geosystems, Environment and Society	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
GEOG 1200 - Global Societies	3 hours	HIST 2620 - United States History Since 1865	3 hours
HIST 2610 - United States History to 1865	3 hours	Component Area Option core	3 hours
Component Area Option A core	3 hours	Earth Science elective-advanced	3 hours
Language, Philosophy and Culture core	3 hours	Techniques elective-advanced	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Additional Science option	3 hours	Earth Science elective-advanced	3 hours
Earth Science elective-advanced	3 hours	Techniques elective-advanced	3 hours
Human Geography elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Earth Science elective-advanced	3 hours	GEOG 4800 - Geography Capstone	3 hours
Elective	3 hours	Earth Science elective-advanced	3 hours
Elective-advanced	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Geography with a concentration in Environmental Studies, BS

A Bachelor of Science with a major in geography and a concentration in environmental studies focuses on the complex interactions between the environment and society. With this concentration, students will develop skills to address both the natural and social aspects of environmental issues.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding foreign language).

Major requirements, 36 hours

A minimum grade of C is required in all major courses to graduate with a major in this department.

Required courses, 12 hours

- GEOG 2110 - Foundations of Geographic Research
- GEOG 2170 - Culture, Environment and Society
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 4800 - Geography Capstone

Environmental studies concentration, 24 hours

Earth science

Choose three courses, one course in three of the four areas. (Courses can only count for one area.)

Geomorphology

- GEOG 4350 - Geomorphology
- GEOL 3010 - Environmental Geology
- GEOL 3020 - Historical Geology
- GEOL 3030 - Earthquakes and Volcanoes

Climatology

- GEOG 3800 - Weather and Climate
- GEOG 4260 - Oceanography

Hydrology

- GEOG 4260 - Oceanography
- GEOG 4750 - Surface Water Hydrology
- GEOL 4850 - Introduction to Groundwater Hydrology

Biogeography

- GEOG 3420 - Applied Biogeography
- GEOG 4710 - Ecosystems: Structure, Function and Services

Human geography

Choose three courses: one course from the subfields group, two courses from any of the three groups.

Subfields

- GEOG 3010 - Economic Geography
- GEOG 3600 - Political Geography
- GEOG 3120 - Medical Geography
- GEOG 4210 - Urban Geography

Regional

- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa

Global issues

- GEOG 3200 - Sustainability
- GEOG 4245 - Geography of International Development
- GEOG 4420 - Capitalism, Nature and Climate Change

Techniques

Choose two courses:

- GEOG 3050 - Introduction to Cartography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4170 - Field Methods and Mapping
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4525 - Using LiDAR Data in GIS
- GEOG 4530 - Remote Sensing and Digital Image Processing
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4570 - Special Topics in GIS

Other course requirements

Mathematics

- MATH 1680 - Elementary Probability and Statistics (or equivalent)

Science

- GEOG 1710 - Earth Science

One additional science course

- BIOL 1132 - Environmental Science
- BIOL 2140 - Principles of Ecology
- BIOL 2241 - Biology of Higher Plants
- BIOL 2251 - Biodiversity and Conservation of Animals
- CHEM 1360 - Context of Chemistry
- CHEM 1410 - General Chemistry I for Science Majors (or equivalent)
- PHYS 1315 - Introduction to the World of Physics
- PHYS 1410 - General Physics I (or equivalent)

Environmental electives

Choose one course:

- ANTH 4400 - Environmental Anthropology
- BIOL 3160 - Conservation Biology
- BIOL 4100 - Introduction to Environmental Impact Assessment
- BIOL 4440 - Stream Ecology
- ECON 4440 - Economics of Natural Resources and Environment
- ENGL 4650 - Literature and the Environment
- HIST 4275 - American Environmental History
- PHIL 2500 - Environment and Society
- PHIL 4700 - Environmental Philosophy
- PHIL 4740 - Environmental Justice

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
GEOG 1710 - Earth Science	3 hours	GEOG 2110 - Foundations of Geographic Research	3 hours
GEOG 2170 - Culture, Environment and Society	3 hours	GEOG 2180 - Geosystems, Environment and Society	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
GEOG 1200 - Global Societies	3 hours	HIST 2620 - United States History Since 1865	3 hours
HIST 2610 - United States History to 1865	3 hours	Component Area Option core	3 hours
Component Area Option A core	3 hours	Human Geography elective-advanced	3 hours
Language, Philosophy and Culture core	3 hours	Techniques elective-advanced	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Additional Science option	3 hours	Earth Science elective-advanced	3 hours
Earth Science elective-advanced	3 hours	Techniques elective-advanced	3 hours
Human Geography elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Earth Science elective-advanced	3 hours	GEOG 4800 - Geography Capstone	3 hours
Human Geography elective-advanced	3 hours	Environmental elective-advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Geography, BS

A Bachelor of Science with a major in geography gives you the knowledge and skills to study and address environmental problems associated with climate change, natural disasters, population growth, public health and urban sprawl. This degree is highly marketable and offers an advantage in an increasingly competitive job market.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in geography.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding foreign language).

Major requirements, 36 hours

A minimum grade of C is required in all courses counting toward the major.

Required courses, 12 hours

- GEOG 2110 - Foundations of Geographic Research
- GEOG 2170 - Culture, Environment and Society
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 4800 - Geography Capstone

Other courses in the major

Three courses from earth science; one course from human geography; two courses from techniques; and two electives from any group.

GEOG 4900 and GEOG 4920 can be applied to any group.

Earth science

- ARCH 4620 - Topics in Archaeology (can count as either earth science or human geography; may be repeated as topics vary)
- GEOG 3420 - Applied Biogeography
- GEOG 3800 - Weather and Climate
- GEOG 4240 - Meteorology
- GEOG 4250 - Climatology
- GEOG 4260 - Oceanography
- GEOG 4350 - Geomorphology
- GEOG 4710 - Ecosystems: Structure, Function and Services
- GEOG 4750 - Surface Water Hydrology
- GEOG 4875 - Earth Science Topics
- GEOL 3000 - Geology of Texas
- GEOL 3010 - Environmental Geology
- GEOL 3020 - Historical Geology
- GEOL 3030 - Earthquakes and Volcanoes
- GEOL 4630 - Soils Geomorphology
- GEOL 4850 - Introduction to Groundwater Hydrology

Human geography

- ARCH 3650 - Origins of Civilization
- ARCH 4620 - Topics in Archaeology (can count as either earth science or human geography; may be repeated as topics vary)
- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3120 - Medical Geography
- GEOG 3200 - Sustainability
- GEOG 3600 - Political Geography
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society

- GEOG 4210 - Urban Geography
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4245 - Geography of International Development
- GEOG 4410 - Location-Allocation Modeling
- GEOG 4420 - Capitalism, Nature and Climate Change
- GEOG 4885 - Human Geography Topics

Techniques

- ARCH 4810 - Archaeological Field School (6 hours; counts as two courses in techniques)
- GEOG 3050 - Introduction to Cartography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4170 - Field Methods and Mapping
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4525 - Using LiDAR Data in GIS
- GEOG 4530 - Remote Sensing and Digital Image Processing
- GEOG 4540 - Introduction to Enterprise GIS Applications
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming
- GEOG 4570 - Special Topics in GIS
- GEOG 4580 - GIS in Health
- GEOG 4590 - Advanced GIS Programming

Other course requirements

Mathematics

- MATH 1680 - Elementary Probability and Statistics (or equivalent)

Sciences

- GEOG 1710 - Earth Science

And one additional science course:

- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I (or equivalent)
- BIOL 2140 - Principles of Ecology
- BIOL 2241 - Biology of Higher Plants
- BIOL 2251 - Biodiversity and Conservation of Animals
- CHEM 1360 - Context of Chemistry
- CHEM 1410 - General Chemistry I for Science Majors (or equivalent)
- PHYS 1315 - Introduction to the World of Physics
- PHYS 1410 - General Physics I (or equivalent)

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
GEOG 1710 - Earth Science	3 hours	GEOL 1610 - Introduction to Geology	3 hours
GEOG 2170 - Culture, Environment and Society	3 hours	GEOG 2110 - Foundations of Geographic Research	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	GEOG 2180 - Geosystems, Environment and Society	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
GEOG 1200 - Global Societies	3 hours	HIST 2620 - United States History Since 1865	3 hours
HIST 2610 - United States History to 1865	3 hours	Component Area Option B core	3 hours
Component Area Option A core	3 hours	BS Geography Science Requirement	3 hours
Creative Arts core	3 hours	Elective	3 hours
Language, Philosophy and Culture core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Geography Earth Science Group	3 hours	Geography Earth Science Group	3 hours
Geography Techniques Group	3 hours	Geography Earth Science Group	3 hours
Elective	3 hours	Geography Techniques Group	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Geography Combined Groups	3 hours	GEOG 4800 - Geography Capstone	3 hours
Geography Human Geography Group	3 hours	Geography Combined Groups	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Geography, BS with grad track option leading to Geography, MS

The Department of Geography and the Environment offers a grad-track pathway in which students complete a Bachelor's Degree in Geography or in Geographic Information Systems and Computer Science in four years, and then go on to earn a master's degree in geography in the fifth year. This accelerated program, which is cost-effective and time-saving, is designed for exceptional, highly motivated majors who have maintained at least a 3.5 GPA and who desire to emphasize geographic techniques. Students must apply to this program in their junior year. Admitted students will take up to twelve graduate hours during their senior year, which can count toward first their bachelor's and then transfer to the master's degree, as permitted by university rules.

Admission requirements and program policies

Admission requirements

To be eligible for acceptance, students must have completed 75 undergraduate hours, including 12 upper-division hours in the major.

In addition to completing the required courses, students will need to submit:

- A statement of purpose;
- A curriculum vitae or resume;
- One letter of recommendation testifying to student's ability to do graduate-level work; and
- An application to the Toulouse Graduate School.

GRE scores are not required. Students in the UNT Honors Program and students who satisfy the requirements are guaranteed admission to the program and need not provide letters of recommendation.

Program requirements

In lieu of 3 to 12 credit hours of advanced undergraduate electives in the fourth year, students for the MS in Geography may take up to four 5000-level graduate classes in their senior year with the approval of their advisor. The classes should be chosen from the following list with an eye to fulfilling requirements for the BS and the non-thesis MS. See the requirements for the BS with a major in Geography and the MS in Geography.

Graduate level courses

- GEOG 5170 - Field Methods (aligns with GEOG 4170)
- GEOG 5185 - Statistical Research Methods in Geography (aligns with GEOG 4185)
- GEOG 5195 - Advanced Geospatial Data Analytics (aligns with GEOG 4195)
- GEOG 5220 - Applied Retail Geography (aligns with GEOG 4220)
- GEOG 5230 - Location Intelligence: Advanced Business GIS Concepts & Applications (aligns with GEOG 4230)
- GEOG 5525 - LiDAR Data Analysis in GIS (aligns with GEOG 4525)
- GEOG 5530 - Remote Sensing and Digital Image Analysis (aligns with GEOG 4530)
- GEOG 5540 - Enabling Business Intelligence Using Enterprise GIS (aligns with GEOG 4540)

Minors

Geography minor

Students planning to minor in geography should consult the geography undergraduate advisor.

Requirements

The minor requires 18 hours, usually including the following:

- GEOG 1200 - Global Societies

  or
- GEOG 2170 - Culture, Environment and Society

- GEOG 1710 - Earth Science
- 12 advanced hours

Undergraduate Academic Certificates

Geographic Information Systems certificate

This certificate may be acquired within the geography major but is also open to students in other programs, non-degree seeking students or outside professionals who wish to add GIS capabilities to their present careers.

A grade of at least B is required in every course counted toward the certificate.

Course sequence, 15 hours

The certificate requires five courses as follows:

Required Courses

- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4560 - Introduction to Python Programming

Group A

One course from Group A:

- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4590 - Advanced GIS Programming

Group B

Two courses from Group B:

- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4220 - Applied Retail Geography
- GEOG 4525 - Using LiDAR Data in GIS
- GEOG 4530 - Remote Sensing and Digital Image Processing
- GEOG 4540 - Introduction to Enterprise GIS Applications
- GEOG 4550 - Advanced Geographic Information Systems (if not taken as Group A) (when topic is approved by advisor)
- GEOG 4590 - Advanced GIS Programming (If not taken as Group A)

Geospatial Analytics certificate

Geospatial analytics provides the tools that enable the rapidly expanding field of Location Intelligence (LI). LI is the combined application of geographic thinking, visualization, and analytics to empower organizations of all kinds to incorporate a consideration of place and space in making better decisions. Studies have found that 97% of companies believe that location intelligence is crucial to their success, two-thirds of business executives use LI to gain a competitive edge, and more than half use it to create new market opportunities.

Students who complete the certificate will gain an understanding of how location theory and data analytics can be leveraged to provide a strategic advantage to various domains including data science, public sector and non-profit organizations. The 12-credit hour certificate sequence includes coursework in application areas including business and retail, health and medical, exploratory data analysis, as well as Geographic Information Systems (GIS).

For more information on the Geospatial Analytics certificate, please contact the certificate coordinator, Dr. Murray Rice, at murray.rice@unt.edu.

Required courses

- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4220 - Applied Retail Geography

  or
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications

One additional course from:

- EADP 4050 - Social Vulnerability in Disasters
- GEOG 4220 - Applied Retail Geography (if not taken as a required course)
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications (if not taken as a required course)
- GEOG 4580 - GIS in Health

Sustainability certificate

Sustainability is about preserving planet Earth for future generations when referring to natural resource extraction, production and consumption. Sustainability literally means capable of being maintained without exhausting or depleting natural resources. The three components to sustainability are 1) stewardship of natural resources, 2) economic responsibility, and 3) social and community well-being. The certificate prepares students in each of these areas through two required courses that cover global cultures and environments as well as electives from three major course groups (15 credit hours of course work, including 9 advanced).

Required courses

6 hours from:

- GEOG 1710 - Earth Science
- GEOG 3200 - Sustainability

Group 1 - Natural resources conservation

Choose one course (3 hours) from:

- BIOL 2251 - Biodiversity and Conservation of Animals
- BIOL 3160 - Conservation Biology
- GEOG 2180 - Geosystems, Environment and Society
- GEOL 3010 - Environmental Geology
- GEOG 3420 - Applied Biogeography
- GEOG 4710 - Ecosystems: Structure, Function and Services

Group 2 - Economic responsibility

Choose one course (3 hours) from:

- ECON 3000 - The Economics of Everything
- ECON 4440 - Economics of Natural Resources and Environment
- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 4245 - Geography of International Development

Group 3 - Social and community well-being

Choose one course (3 hours) from:

- ANTH 4310 - Citizenship, Borders and Belonging in the United States
- ANTH 4400 - Environmental Anthropology
- ANTH 4760 - Inequality, Social Justice and the City
- GEOG 2170 - Culture, Environment and Society
- GEOG 4420 - Capitalism, Nature and Climate Change
- PHIL 4700 - Environmental Philosophy
- WGST 4250 - Gender and Sustainable Development

Water Resources certificate

The water resources certificate focuses on the study of water above, upon, and beneath the earth's surface. The certificate provides a foundation in the study of water resources, including the basics of hydrology and area courses from which students may select options in biology, emergency management, geography, and philosophy (15 hours).

Requirements

Required courses:

- GEOG 3800 - Weather and Climate
- GEOG 4750 - Surface Water Hydrology
- GEOL 4850 - Introduction to Groundwater Hydrology

Additional courses

Choose two courses from the following:

- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4380 - Fundamentals of Aquatic Toxicology
- EADP 4015 - Flood Plain Management
- GEOL 3010 - Environmental Geology
- GEOG 4260 - Oceanography
- PHIL 4650 - Philosophy of Water

Department of History

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Rachel Moran, Chair

Faculty

History encompasses all aspects of past human endeavors. It encourages students to think broadly and to integrate all of their knowledge into a meaningful whole. From history a person develops a better understanding of current events and a better appreciation of art, architecture, ideas, politics, and fellow human beings and their activities. It also provides a guide for the future. The study of history is important for journalists, teachers, businesspeople, theologians, politicians, scientists, lawyers, librarians, archivists, museologists and those in many other professions. Students planning any career could benefit from majoring or minoring in history or from choosing history as the lead subject in a social science major or for elective credits. History is an interest that students may retain for life.

U.S. history requirement

Texas state law requires that the university may not award a baccalaureate degree or a lesser degree or academic certificate unless the student has credit for 6 semester hours in American history. A student is entitled to submit as much as 3 hours of credit, or its equivalent, in Texas history in partial satisfaction of this requirement. The university may determine that a student has met the requirement by work transferred from another accredited college or upon successful completion of an advanced standing examination. The student may satisfy the entire 6-hour United States/Texas history requirement by advanced standing examination. This requirement may be satisfied by credit in HIST 2610 (HIST 1301) and HIST 2620 (HIST 1302) (United States history) or HIST 2675 and HIST 2685 (Honors United States history).

Scholarships

The Department of History offers the following undergraduate scholarships:

Hagler-Marquis History Scholarship

History Excellence Scholarship

Howard H. Schultz Scholarship and Watt Family Scholarship in Jewish Studies

Harry and Ruth Kamman Scholarship

Gus Seligmann History Scholarship

Ledbetter Family Scholarship

CBS Mechanical Inc. History Scholarship

Nation's Heritage Scholarship

Benjamin Lyon Chapter DAR Scholarship

Kingsbury-Thomason Scholarship (for students who intend to major in history and to teach history in Texas public schools).

History majors who are entering freshmen, transfer students or continuing students may apply. The application deadline is February 20. For information and application forms, contact Miranda Leddy, Administrative Coordinator, at 940-369-8932 or miranda.leddy@unt.edu.

History, BA

Students pursuing a Bachelor of Arts with a major in history are supported by the History Help Center, which can assist you with preparing for exams and writing papers. There are also opportunities for hands-on research with professors specializing in a wide range of topics.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in history.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Required courses

- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century
- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865

Upper-level history courses, 24 hours

24 semester hours of advanced work (3000-4000 level), with four courses in a single geographic area, at least one course in each of the remaining geographic areas and two courses in a single theme.

Each student will choose a geographic focus area for his or her advanced course work by taking at least four courses in one of three groups: United States; Europe; or Africa, Asia, Latin America and the Middle East. Students must take at least one course from each of the other two geographic areas outside of their focus. Each student will also select one of the following themes by taking two courses within that theme: culture and everyday life; empires and borderlands; food and the body; gender and sexuality; mass violence and atrocities; politics, policy and economics; premodern Europe and the Mediterranean; race and ethnicity; Texas, the South and the West; war, military and society; and applied historical methods. Students must finish a history course with a grade of C or better for it to count toward the history major.

Geographic area: United States

- HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory
- HIST 3010 - History through Video Games
- HIST 3020 - Introduction to the Health Humanities
- HIST 3021 - History of Medicine, 1400 to Present
- HIST 3050 - Introduction to Public History
- HIST 3051 - Digital Public History
- HIST 3052 - Mapping Slavery and Freedom
- HIST 3060 - History of Sexualities in U.S.
- HIST 3061 - Women in the United States to 1900
- HIST 3062 - Women in the United States Since 1900
- HIST 3063 - U.S. Gender and Race Since 1945
- HIST 3080 - 20th Century U.S. Anti-War Movements
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 3160 - Latinx Civil Rights Movements
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 3260 - Slavery in the Americas
- HIST 3280 - The French Empire since 1600
- HIST 3333 - Horticultural Histories of North Texas
- HIST 3400 - History of American Country Music
- HIST 3407 - Fitness Culture in U.S. History
- HIST 3408 - Madness and Mental Health in U.S. History
- HIST 3410 - History of American Childhood
- HIST 3480 - Colonial America
- HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption
- HIST 3495 - United States Food History
- HIST 3630 - U. S. Navy, 1775–Present: Sails
- HIST 3700 - Texas History
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3800 - History of the Present
- HIST 3850 - The Early National Period of the United States, 1789–1848
- HIST 3871 - America in the Gilded Age
- HIST 3875 - Prosperity, Depression and a New Deal, 1918-1941
- HIST 3900 - American Horror History
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4074 - The Vietnam War
- HIST 4076 - Comparative Civil Wars
- HIST 4123 - Slander and Libel in Anglo-American History, 1500 to the Present
- HIST 4170 - History of Tejanos/as
- HIST 4261 - Topics in United States History
- HIST 4270 - The American West
- HIST 4271 - Hollywood and the Wild West
- HIST 4272 - Explorers of North America
- HIST 4275 - American Environmental History
- HIST 4276 - Animal Histories
- HIST 4282 - Settler Colonialism and Empire
- HIST 4303 - Age of Empire 1848-1914
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4405 - History of the Body
- HIST 4406 - Sickness and Health in U.S. History
- HIST 4411 - Pirates, Smugglers, and States in the Atlantic World, 1600-1856
- HIST 4444 - Historical Teaching and Scholarship on Race
- HIST 4451 - African American History During Segregation Era
- HIST 4455 - History of Black Women in America
- HIST 4456 - United States Labor History
- HIST 4462 - Religion in American History
- HIST 4475 - Jewish Women in Modern America
- HIST 4490 - The American Revolution – Causes and Consequences
- HIST 4520 - Doing Digital History
- HIST 4631 - North Atlantic Maritime History: 1427-1838

- HIST 4640 - History of U.S Military in 19th Century
- HIST 4641 - History of U.S. Military in 20th Century
- HIST 4642 - War and American Society, 1608-2001
- HIST 4830 - Rise and Fall of the Slave South
- HIST 4840 - Making of the Modern South
- HIST 4860 - The Civil War and Reconstruction
- HIST 4870 - Making of the Modern United States, 1877–1929
- HIST 4881 - Conspiracies and Conspiracy Theories in U.S. History
- HIST 4882 - The United States During the 1960s
- HIST 4884 - Social Movements in United States History
- HIST 4885 - History of Sports and American Society
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.
- HIST 4435 - Jewish Americans and Popular Culture

When applicable

- HIST 3000 - The Historian's Craft
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HUMA 4920 - Applied Humanities Internship
- HIST 4951 - Honors College Capstone Thesis

Geographic area: Europe

- HIST 3010 - History through Video Games
- HIST 3020 - Introduction to the Health Humanities
- HIST 3021 - History of Medicine, 1400 to Present
- HIST 3100 - Early Modern Europe on Film
- HIST 3101 - The Six Wives of Henry VIII
- HIST 3302 - Ancient Greece
- HIST 3303 - The Roman Republic and Augustus
- HIST 3305 - The Early Byzantine Empire
- HIST 3307 - Roman Warfare
- HIST 3308 - Ancient Israel
- HIST 3440 - The Indian Ocean World
- HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption
- HIST 3600 - Evolution of Warfare to Napoleon
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 3620 - Nazism: Symbolism and Archaeology
- HIST 3762 - Rome: The Biography of a City
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3780 - Empires and Europe's Early Modern World
- HIST 4004 - The Roman Empire
- HIST 4006 - Roman Law and Order
- HIST 4008 - Ancient Religion and Magic
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4073 - World War II: The Soviet-German War
- HIST 4074 - The Vietnam War
- HIST 4076 - Comparative Civil Wars
- HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4100 - Modern Britain
- HIST 4101 - Women and the British Raj
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4123 - Slander and Libel in Anglo-American History, 1500 to the Present
- HIST 4125 - The Military History of England and its Colonies
- HIST 4175 - Slaveries in the Spanish and Portuguese Worlds
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4220 - The Renaissance
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4223 - Crusade and Jihad
- HIST 4224 - History of the Book
- HIST 4230 - The Age of the Reformation
- HIST 4242 - Food in London: Tastes of an Empire
- HIST 4262 - Topics in European History
- HIST 4282 - Settler Colonialism and Empire
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4310 - Gender and Sexuality in Early Modern Europe
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4385 - Nazi Germany

- HIST 4390 - The Holocaust, 1933–1945
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4411 - Pirates, Smugglers, and States in the Atlantic World, 1600-1856
- HIST 4631 - North Atlantic Maritime History: 1427-1838

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4262 - Topics in European History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Geographic area: Africa, Asia, Latin America and the Middle East

- HIST 3010 - History through Video Games
- HIST 3020 - Introduction to the Health Humanities
- HIST 3173 - Latin American Food History
- HIST 3190 - Mexico, 1810–Present
- HIST 3260 - Slavery in the Americas
- HIST 3300 - Ancient Near East
- HIST 3301 - Ancient Egypt
- HIST 3305 - The Early Byzantine Empire
- HIST 3308 - Ancient Israel
- HIST 3440 - The Indian Ocean World
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3470 - History of the Israeli-Palestinian Conflict
- HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption
- HIST 3550 - Imperial China
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3780 - Empires and Europe's Early Modern World
- HIST 4008 - Ancient Religion and Magic
- HIST 4066 - World War I
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4074 - The Vietnam War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4076 - Comparative Civil Wars
- HIST 4101 - Women and the British Raj
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4175 - Slaveries in the Spanish and Portuguese Worlds
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4223 - Crusade and Jihad
- HIST 4224 - History of the Book
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4303 - Age of Empire 1848-1914
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4395 - The State of Israel
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4575 - Military and Diplomatic History of the Cold War in East Asia
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4600 - Late Medieval and Early Modern South Asia
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Culture and everyday life

- HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory
- HIST 3010 - History through Video Games
- HIST 3020 - Introduction to the Health Humanities

- HIST 3021 - History of Medicine, 1400 to Present
- HIST 3060 - History of Sexualities in U.S.
- HIST 3061 - Women in the United States to 1900
- HIST 3062 - Women in the United States Since 1900
- HIST 3063 - U.S. Gender and Race Since 1945
- HIST 3100 - Early Modern Europe on Film
- HIST 3101 - The Six Wives of Henry VIII
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 3173 - Latin American Food History
- HIST 3190 - Mexico, 1810–Present
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 3260 - Slavery in the Americas
- HIST 3400 - History of American Country Music
- HIST 3407 - Fitness Culture in U.S. History
- HIST 3408 - Madness and Mental Health in U.S. History
- HIST 3410 - History of American Childhood
- HIST 3450 - Islam and its Empires
- HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption
- HIST 3495 - United States Food History
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 3800 - History of the Present
- HIST 3900 - American Horror History
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4123 - Slander and Libel in Anglo-American History, 1500 to the Present
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4223 - Crusade and Jihad
- HIST 4224 - History of the Book
- HIST 4230 - The Age of the Reformation
- HIST 4241 - World Histories of Pop Music
- HIST 4242 - Food in London: Tastes of an Empire
- HIST 4247 - A History of Jews in the Middle East
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4276 - Animal Histories
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe
- HIST 4310 - Gender and Sexuality in Early Modern Europe
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4451 - African American History During Segregation Era
- HIST 4456 - United States Labor History
- HIST 4462 - Religion in American History
- HIST 4600 - Late Medieval and Early Modern South Asia
- HIST 4881 - Conspiracies and Conspiracy Theories in U.S. History
- HIST 4882 - The United States During the 1960s
- HIST 4884 - Social Movements in United States History

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Empires and borderlands

- HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory
- HIST 3010 - History through Video Games
- HIST 3100 - Early Modern Europe on Film
- HIST 3280 - The French Empire since 1600
- HIST 3305 - The Early Byzantine Empire
- HIST 3440 - The Indian Ocean World
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3470 - History of the Israeli-Palestinian Conflict
- HIST 3480 - Colonial America
- HIST 3550 - Imperial China
- HIST 3570 - Japanese History
- HIST 3700 - Texas History
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3780 - Empires and Europe's Early Modern World
- HIST 3850 - The Early National Period of the United States, 1789–1848
- HIST 4004 - The Roman Empire
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4074 - The Vietnam War
- HIST 4076 - Comparative Civil Wars
- HIST 4100 - Modern Britain
- HIST 4101 - Women and the British Raj
- HIST 4110 - British Empire in Asia, Africa, and the Pacific

- HIST 4125 - The Military History of England and its Colonies
- HIST 4170 - History of Tejanos/as
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4175 - Slaveries in the Spanish and Portuguese Worlds
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4230 - The Age of the Reformation
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4242 - Food in London: Tastes of an Empire
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4248 - Palestinian History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4270 - The American West
- HIST 4271 - Hollywood and the Wild West
- HIST 4272 - Explorers of North America
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4395 - The State of Israel
- HIST 4411 - Pirates, Smugglers, and States in the Atlantic World, 1600-1856
- HIST 4490 - The American Revolution – Causes and Consequences
- HIST 4575 - Military and Diplomatic History of the Cold War in East Asia
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4600 - Late Medieval and Early Modern South Asia
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- HIST 4870 - Making of the Modern United States, 1877–1929

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Food and the body

- HIST 3020 - Introduction to the Health Humanities
- HIST 3021 - History of Medicine, 1400 to Present
- HIST 3173 - Latin American Food History
- HIST 3333 - Horticultural Histories of North Texas
- HIST 3407 - Fitness Culture in U.S. History
- HIST 3408 - Madness and Mental Health in U.S. History
- HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption
- HIST 3495 - United States Food History
- HIST 4242 - Food in London: Tastes of an Empire
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4275 - American Environmental History
- HIST 4276 - Animal Histories
- HIST 4405 - History of the Body
- HIST 4406 - Sickness and Health in U.S. History
- HIST 4885 - History of Sports and American Society

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Gender and sexuality

- HIST 3060 - History of Sexualities in U.S.
- HIST 3061 - Women in the United States to 1900
- HIST 3062 - Women in the United States Since 1900
- HIST 3063 - U.S. Gender and Race Since 1945
- HIST 3101 - The Six Wives of Henry VIII
- HIST 3400 - History of American Country Music
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 3900 - American Horror History
- HIST 4101 - Women and the British Raj
- HIST 4221 - Early Modern Europe and the World
- HIST 4223 - Crusade and Jihad
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History

- HIST 4271 - Hollywood and the Wild West
- HIST 4310 - Gender and Sexuality in Early Modern Europe
- HIST 4405 - History of the Body
- HIST 4406 - Sickness and Health in U.S. History
- HIST 4455 - History of Black Women in America
- HIST 4475 - Jewish Women in Modern America

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Mass violence and atrocities

- HIST 3010 - History through Video Games
- HIST 3260 - Slavery in the Americas
- HIST 3620 - Nazism: Symbolism and Archaeology
- HIST 4070 - World War II: European Theater
- HIST 4074 - The Vietnam War
- HIST 4076 - Comparative Civil Wars
- HIST 4223 - Crusade and Jihad
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4391 - War Crimes, Genocide, and Justice

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Politics, policy and economics

- HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory
- HIST 3063 - U.S. Gender and Race Since 1945
- HIST 3080 - 20th Century U.S. Anti-War Movements
- HIST 3101 - The Six Wives of Henry VIII
- HIST 3160 - Latinx Civil Rights Movements
- HIST 3190 - Mexico, 1810–Present
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 3410 - History of American Childhood
- HIST 3440 - The Indian Ocean World
- HIST 3460 - Modern Middle Eastern History
- HIST 3480 - Colonial America
- HIST 3550 - Imperial China
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 3762 - Rome: The Biography of a City
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3780 - Empires and Europe's Early Modern World
- HIST 3800 - History of the Present
- HIST 3850 - The Early National Period of the United States, 1789–1848
- HIST 3871 - America in the Gilded Age
- HIST 3875 - Prosperity, Depression and a New Deal, 1918-1941
- HIST 4006 - Roman Law and Order
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4074 - The Vietnam War
- HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors
- HIST 4100 - Modern Britain
- HIST 4101 - Women and the British Raj
- HIST 4123 - Slander and Libel in Anglo-American History, 1500 to the Present
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4175 - Slaveries in the Spanish and Portuguese Worlds
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4223 - Crusade and Jihad
- HIST 4224 - History of the Book
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4270 - The American West
- HIST 4275 - American Environmental History

- HIST 4276 - Animal Histories
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4406 - Sickness and Health in U.S. History
- HIST 4411 - Pirates, Smugglers, and States in the Atlantic World, 1600-1856
- HIST 4444 - Historical Teaching and Scholarship on Race
- HIST 4451 - African American History During Segregation Era
- HIST 4456 - United States Labor History
- HIST 4462 - Religion in American History
- HIST 4490 - The American Revolution – Causes and Consequences
- HIST 4575 - Military and Diplomatic History of the Cold War in East Asia
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4600 - Late Medieval and Early Modern South Asia
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- HIST 4631 - North Atlantic Maritime History: 1427-1838
- HIST 4870 - Making of the Modern United States, 1877–1929
- HIST 4881 - Conspiracies and Conspiracy Theories in U.S. History
- HIST 4882 - The United States During the 1960s
- HIST 4884 - Social Movements in United States History
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Premodern Europe and the Mediterranean

- HIST 3300 - Ancient Near East
- HIST 3301 - Ancient Egypt
- HIST 3302 - Ancient Greece
- HIST 3303 - The Roman Republic and Augustus
- HIST 3305 - The Early Byzantine Empire
- HIST 3307 - Roman Warfare
- HIST 3308 - Ancient Israel
- HIST 3450 - Islam and its Empires
- HIST 3762 - Rome: The Biography of a City
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4004 - The Roman Empire
- HIST 4006 - Roman Law and Order
- HIST 4008 - Ancient Religion and Magic
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4220 - The Renaissance
- HIST 4221 - Early Modern Europe and the World
- HIST 4222 - Medieval Travelers
- HIST 4223 - Crusade and Jihad
- HIST 4224 - History of the Book
- HIST 4247 - A History of Jews in the Middle East
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Race and ethnicity

- HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory
- HIST 3010 - History through Video Games
- HIST 3052 - Mapping Slavery and Freedom
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 3160 - Latinx Civil Rights Movements
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865

- HIST 3260 - Slavery in the Americas
- HIST 3400 - History of American Country Music
- HIST 3470 - History of the Israeli-Palestinian Conflict
- HIST 3620 - Nazism: Symbolism and Archaeology
- HIST 3700 - Texas History
- HIST 3777 - Israel in Jewish Memory and History
- HIST 3900 - American Horror History
- HIST 4170 - History of Tejanos/as
- HIST 4175 - Slaveries in the Spanish and Portuguese Worlds
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4444 - Historical Teaching and Scholarship on Race
- HIST 4451 - African American History During Segregation Era
- HIST 4455 - History of Black Women in America
- HIST 4475 - Jewish Women in Modern America
- HIST 4830 - Rise and Fall of the Slave South
- HIST 4840 - Making of the Modern South
- HIST 4882 - The United States During the 1960s
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: Texas, the South and the West

- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 3333 - Horticultural Histories of North Texas
- HIST 3400 - History of American Country Music
- HIST 3700 - Texas History
- HIST 4170 - History of Tejanos/as
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4270 - The American West
- HIST 4271 - Hollywood and the Wild West
- HIST 4272 - Explorers of North America
- HIST 4451 - African American History During Segregation Era
- HIST 4455 - History of Black Women in America
- HIST 4830 - Rise and Fall of the Slave South
- HIST 4840 - Making of the Modern South
- HIST 4860 - The Civil War and Reconstruction
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Theme: War, military and society

- HIST 3080 - 20th Century U.S. Anti-War Movements
- HIST 3307 - Roman Warfare
- HIST 3600 - Evolution of Warfare to Napoleon
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 3630 - U. S. Navy, 1775–Present: Sails
- HIST 3850 - The Early National Period of the United States, 1789–1848
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4074 - The Vietnam War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4076 - Comparative Civil Wars
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4125 - The Military History of England and its Colonies
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4223 - Crusade and Jihad

- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4385 - Nazi Germany
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4490 - The American Revolution – Causes and Consequences
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4575 - Military and Diplomatic History of the Cold War in East Asia
- HIST 4631 - North Atlantic Maritime History: 1427-1838
- HIST 4640 - History of U.S Military in 19th Century
- HIST 4641 - History of U.S. Military in 20th Century
- HIST 4642 - War and American Society, 1608-2001
- HIST 4860 - The Civil War and Reconstruction
- HIST 4870 - Making of the Modern United States, 1877–1929

When applicable

- HIST 3000 - The Historian's Craft
- HIST 3996 - Honors College Mentored Research Experience
- HIST 4260 - Topics in History
- HIST 4261 - Topics in United States History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis
- HUMA 3010 - Introduction to Digital Humanities
- HUMA 3020 - Introduction to the Medical and Health Humanities
- HUMA 4920 - Applied Humanities Internship

Other course requirements

None.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
HIST 1050 - World History to the Sixteenth Century	3 hours	HIST 1060 - World History from the Sixteenth Century	3 hours
Communication core	3 hours	Communication core	3 hours
Life and Physical Sciences Core	3 hours	Life and Physical Sciences Core	3 hours
Mathematics Core	3 hours	Social and Behavioral Sciences Core	3 hours
CLASS Foreign Language-elementary	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Component Area Option A Core	3 hours	Creative Arts Core	3 hours
CLASS Foreign Language-intermediate	3 hours	CLASS Foreign Language-intermediate	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
History-American History-advanced	3 hours	History-American History-advanced	3 hours
History-American History-advanced	3 hours	History-European History-advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
History-African, Asian, Middle Eastern and Latin American History-advanced	3 hours	History-American History-advanced	3 hours
Theme selection	3 hours	Theme selection	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Minors

History minor

Students may minor in history by completing 18 semester hours.

Required courses

- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865
- 12 hours of additional history courses, 6 of which must be at the 3000 or 4000 level.

Secondary Teacher Certification

History teacher certification

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in History. Upon completion of this program, students will be prepared to sit for the certification examinations in History.

All state certification requirements and information on required examinations are available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-for-educator-certification.

Required courses

- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century
- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865
- HIST 3700 - Texas History
- HIST 4750 - Social Studies Teaching Methods

Upper-level history courses, 21 hours

21 semester hours of advanced work (3000- to 4000-level), with three courses in a single geographic area, at least one course in each of the remaining geographic areas, and two courses in a single theme.

Each student will choose a geographic focus area for his or her advanced course work by taking at least three courses in one of three groups:

- United States;
- Europe; or
- Africa, Asia, Latin America, and the Middle East.

Students must take at least one course from the other two geographic areas outside of their focus.

Each student will also select one of the following themes by taking two courses within that theme:

- culture and everyday life;
- empires and borderlands;
- food and the body;
- gender and sexuality;
- mass violence and atrocities;
- politics, policy and economics;
- premodern Europe and the Mediterranean;
- race and ethnicity;
- Texas, the South and the West; and
- war, military and society.

Students must finish a history course with a grade of C or better for it to count toward the BA in history with secondary education certification.

Education courses, 21 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Additional requirements

See History, BA for additional course work and GPA requirements.

Students meet all GPA requirements to apply for state certification.

In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

Undergraduate Academic Certificates

Africana Studies certificate

The Africana studies certificate offers undergraduate students an interdisciplinary curriculum that introduces and expands knowledge related to cultures and histories of African people throughout the Diaspora. Utilizing scholarly research, theoretical inquiry and policy analysis, UNT graduates will be prepared to impact their communities in ways that will promote social justice, anti-racism, inclusion, equity and mutual respect.

Students with questions about this certificate may contact Dr. Christopher Todd, Department of History (christopher.todd@unt.edu).

Requirements, 12 hours

Six hours selected from:

- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 4580 - Africa to the Nineteenth Century

Six hours selected from:

- ANTH 3130 - African-American Anthropology
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 4550 - Race, Ethnicity and Identity
- CJUS 3500 - Inequality, Crime and Justice
- ECON 3150 - Economics of Discrimination
- EDCI 4070 - Teaching in a Multicultural Classroom
- ENGL 4260 - African American Literature
- ENGL 4280 - Africana Literature, Media and Culture
- ENGL 4285 - Africana Theory and Criticism
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- HIST 3052 - Mapping Slavery and Freedom
- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- HIST 4451 - African American History During Segregation Era
- HIST 4455 - History of Black Women in America
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4830 - Rise and Fall of the Slave South
- HIST 4840 - Making of the Modern South
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.
- LING 3010 - African American English
- MUCM 3617 - Percussion Ensemble
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3617 - African Music and Movement
- MUJS 3070 - History of Jazz
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3106 - African-American Politics
- PSYC 4040 - Psychology of Race in the U.S.
- Other courses as approved by the Africana studies certificate advisors.

Medical and Health Humanities certificate

The Medical and Health Humanities Certificate bridges the gap between biomedicine and the cultural aspects of health by uncovering the ways that social and political structures shape experiences of illness and disability and even determine healthcare access and outcomes. The certificate trains students to mobilize skills from the liberal arts to scrutinize complex issues within the natural sciences and medicine. Such an interdisciplinary approach produces healthcare practitioners better prepared to grapple with the ethical complexities of modern medicine and, crucially, to communicate such intricacy to diverse stakeholders. By learning to apply the humanistic skills of interpretation, reflection, and subjectivity to subjects of health and medicine, students will enhance their ability to evaluate sources, analyze evidence, and formulate arguments. These skills are instrumental for developing fact literacy and combating the ongoing erosion of public trust in science, all of which are essential and necessary skills for competitive job candidates.

Students with questions about this certificate may contact Dr. Jakob Burnham, Department of History (Jakob.burnam@unt.edu).

Requirements

15 hours, including 9 advanced.

- HUMA 3020 - Introduction to the Medical and Health Humanities

Plus four courses

An additional four courses (12 hours) are chosen by the student; students may choose from, but are not limited to, the following list.

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4220 - Anthropology in Public Health
- COMM 3220 - Health Communication (requires COMM 2020 as a prerequisite)
- ENGL 3110 - Writing and Rhetoric in the Humanities
- ENGL 4630 - Studies in Literature and Medicine
- GEOG 3120 - Medical Geography
- GEOG 4580 - GIS in Health
- HIST 3021 - History of Medicine, 1400 to Present
- HIST 3407 - Fitness Culture in U.S. History
- HIST 4405 - History of the Body
- HIST 4406 - Sickness and Health in U.S. History
- HUMA 4920 - Applied Humanities Internship
- JOUR 4212 - Science, Health and Environmental Reporting
- PHIL 3160 - Philosophy of Death and Dying
- PHIL 3250 - Philosophy of Science
- PHIL 3440 - Bioethics
- SOCI 3120 - Sociology of Health and Illness
- SPAN 3550 - Spanish for the Medical Professions I (requires SPAN 2050 as a prerequisite)
- SPAN 3560 - Spanish for the Medical Professions II (requires SPAN 3550 as a prerequisite)

Department of Media Arts

Main Departmental Office
Radio, TV, Film and Performing Arts Building, Room 262

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Web site: www.mediaarts.unt.edu

Harry Benshoff, Chair
Tania Khalaf, Associate Chair

Faculty

Radio, television, film and digital media platforms play a significant role in society by providing both entertainment and information in a constantly changing world. The Department of Media Arts prepares students with a wide range of knowledge and skills for careers in traditional media (broadcasting, film production, editing, on-air talent, audience research, media management), newer media (writing and producing for social media and digital media platforms) and video game design and development (games studies, design, narrative development, art and animation).

Media Arts students engage in a curriculum that combines a liberal arts education with hands-on experience utilizing similar tools used by industry professionals. The Media Arts department equips students with the foundational principles, critical thinking, skills and opportunities they need to succeed in today's ever-changing media world. Courses offer students unique opportunities to learn from expert faculty members who are committed to preparing students for future careers in the media industry or academia.

Located within the thriving Dallas–Fort Worth media market (currently ranked 5th in the U.S.) the department frequently hosts professionals who serve as guest speakers and adjunct professors. The location within the DFW market offers numerous internship and part-time employment opportunities while students are pursuing their degrees.

The department offers two degrees:

- a Bachelor of Arts with a major in Media Arts (MRTS)
- a Bachelor of Arts with a major in Converged Broadcast Media (CBCM)

The College of Liberal Arts and Social Sciences offers a Bachelor of Science with a major in Game Studies and Design (GMSD) in collaboration with the Department of Media Arts.

The MRTS undergraduate major provides comprehensive hands-on experiences in media production along with courses devoted to writing, industry practices, broadcast and film history, digital media, film styles, genres and critical/cultural studies.

The CBCM undergraduate major provides extensive background in media convergence, web-based production of news and information, as well as courses devoted to covering sports, entertainment and politics, as well as interviewing and on-air performance.

The GMSD undergraduate major provides a robust foundation in game design, development, and storytelling, with courses focused on game art, animation, design principles, and game studies. Students gain hands-on experience in creating interactive projects while exploring industry practices, game history, player psychology, and narrative techniques.

With more than 1300 undergraduate students, Media Arts is one of the largest and most active programs in the College of Liberal Arts and Social Sciences. Students have the opportunity to work for our local television station, ntTV, or our radio station, KNTU. Students can also join a variety of film clubs, student-run organizations focused on peer mentorship, production opportunities and critical analysis.

The department's diverse faculty includes top research scholars and media practitioners with many years of experience. Faculty frequently publish monographs, anthologies, textbooks, and articles in top-tier journals and present research at top-ranked national and international conferences. Our creative faculty have produced multiple award-winning narrative films and documentaries that are screened in local, national, and international festivals. Students also gain expert knowledge from faculty who have years of professional experience working in the media industry.

Admission to the major

Students who are interested in becoming an MRTS, CBCM or GMSD major must fulfill some initial requirements and be advised by the advising office. For further information on admissions and requirements, see Media Arts, BA, Converged Broadcast Media, BA or Game Studies and Design, BS.

KNTU-FM

KNTU-FM 88.1 HD1 & HD2.

The University's radio station serves North Texas and Southern Oklahoma and is listed in Nielsen Audio Ratings for Dallas-Fort Worth, the 5th largest radio market in the nation. KNTU operates two radio stations 24 / 7 / 365 – 88.1 indie (alternative rock on FM 88.1 HD1 and 881indie.com) and KNTU The One (jazz on FM 88.1 HD2 and kntu.com). The station also operates the North Texas Streaming Network, an internet video streaming project of high school sports. All UNT students are eligible to work at any of KNTU's platforms to participate in creating content for radio, internet, and social media. There are a few paid, part time middle manager jobs; other students work to gain practicum/internship credit toward their degrees, and some are volunteers who gain invaluable training toward beginning a media career. More information is available at www.kntu.com.

North Texas Television

ntTV (North Texas Television) is a nationally recognized, award-winning student-run television operation. ntTV offers all UNT students the dynamic opportunity to produce, write, direct and broadcast their work across the DFW area. Content areas include news, sports, entertainment and marketing, as well as long-form live productions.

Organizations

The department participates actively as an institutional member of the Broadcast Education Association; the University Film and Video Association; the Texas Association of Broadcast Educators; the Society for Cinema and Media Studies; and the Radio, Television Digital News Association (RTDNA) student chapter.

Scholarships

Each year, the Department of Media Arts distributes scholarships to help undergraduate students pay the cost of their education. These funds -- from private individual donors, corporations, and foundations -- are for direct student support and do not have to be repaid. Scholarships are awarded to students based on qualifications specified by each award which include things like field of study, career interests, and academic merit. Applications are submitted via the Media Arts website and are reviewed by a committee of Media Arts faculty with awards announced at the end of each academic year. Scholarships are typically for amounts up to $1,500 and the money is applied towards tuition in the Fall semester. The number and dollar amount of awards available each year depends on the total dollar amount of funding available.

The Alan and Beverly Albarran Scholarship is an award established by Dr. Alan Albarran, former professor and department chair in the Department of Media Arts, and his wife Beverly, to provide scholarships for undergraduate or graduate students in the Department of Media Arts who are pursuing an industry studies emphasis in their degree.

The Bill Mercer Endowment for Broadcast Media is a scholarship established by UNT alumnus Bill Mercer (M.A., 1966), the original "Voice of the Mean Green" and a member of the Texas Radio Hall of Fame, to support Media Arts students studying broadcast media or journalism.

The Bud Buschardt Memorial Scholarship is a scholarship in memory of Bud Buschardt who served as an adjunct professor in the Department of Media Arts for 46 years. Starting in 1963, he

produced and hosted television and radio shows on WFAA and KVIL; and in 2010, he was inducted into the Texas Radio Hall of Fame. This scholarship is intended to honor Buschardt by providing an opportunity for Converged Broadcast Media (CBCM) students to pursue their passions and to create their own successful paths to the future. Applicants must be entering or currently in their junior year (completed at least 60 hours of coursework) at the time of application. If there are no eligible Converged Broadcast Media applicants, Media Arts majors will be eligible for consideration. This scholarship may not be awarded to a previous recipient.

The Cindy Coyle Memorial Scholarship is a scholarship in memory of Cindy Coyle, who spent her career working in marketing and promotions for DFW radio stations, to provide support for students with an expressed career interest in radio.

The Country Radio Broadcasters Scholarship is a scholarship for undergraduate students interested in a career in radio or a related field. Students must have a minimum GPA of 2.75 and have completed a minimum of 60 hours of coursework toward their degree at the time of application.

Department of Media Arts Executive Board Scholarship is a scholarship for undergraduate and graduate students in the department of Media Arts. Students must be enrolled for at least 12 hours (undergraduate) or at least 9 hours (graduate) of study in both the Spring and Fall semesters. Students must have completed at least 60 hours of coursework towards a degree at the time of application and have a minimum UNT GPA of 3.0.

The Edwin L. Glick Scholarship is a scholarship established by former UNT professor and Media Arts Department Chair Dr. Edwin Glick to encourage students to pursue careers in broadcasting, cable, and other related media industries that might develop in the future. Students must have completed at least 12 hours in Media Arts coursework at UNT and be enrolled as a full-time Media Arts student in the semester for which the scholarship was awarded. Students must have a minimum GPA of 3.0 and demonstrate interest in a career in broadcasting/cable such as production, sales, management, operations, or broadcast journalism, through appropriate courses, internships, extracurricular activities (e.g. KNTU or ntTV) or other industry-related employment. It is not the intent of this scholarship to support film production or video production except for news documentary.

The First Broadcasting Scholarship is a scholarship for students who have a demonstrated an interest in radio broadcasting as a career through participation with either KNTU or through off-campus internships. Students must have completed at least 60 hours of coursework and have a GPA of at least 2.5.

The Kathleen Woodby Scholarship was established by UNT alumna Kathleen Woodby for undergraduate students in the Department of Media Arts.

The Kurt D. Ugland Scholarship is a scholarship in memory of Kurt D. Ugland, a Department of Media Arts alumnus and former executive producer of the City of Plano's Television Network (PTN), to support undergraduate or graduate students in television production in the Department of Media Arts who demonstrate exceptional creativity.

The Mark Rybczyk Scholarship was established by Mark Rybczyk, a UNT alumnus who is a radio personality known as Mark "Hawkeye" Louis on the DFW radio station 96.3 KSCS, for undergraduate students studying radio, television and film. Rybczyk is a member of the Country Radio Hall of Fame, the Texas Radio Hall of Fame, winner of the Billboard Air personality of the Year, the Academy of Country Music DJ of the Year, and winner of the Marconi Radio Award in the category of Major Market Personality of the Year.

The Melanie Goodwin RTVF Scholarship provides support for Media Arts students in memory of former UNT student Melanie Goodwin.

Paramount Pictures Undergraduate Scholarship is an academic scholarship award to recognize excellence and promise in the undergraduate study and production of radio, television and/or film media at UNT.

Walter Deed Memorial Scholarship is a scholarship in honor of Walter P. Deed, chief video engineer in the Department of Media Arts from 2000-2007, to provide support for undergraduate students studying television engineering and who maintain a GPA of 3.0.

Westcott Foundation Scholarship is a fund to support undergraduate students in the Department of Media Arts who have demonstrated merit, motivation and talent with the means to complete their education at the University of North Texas.

Requirements

1. Applicants must meet minimum entrance and academic performance standards of the College of Liberal Arts and Social Sciences and the Department of Media Arts.
2. Applicants must be enrolled for at least 12 hours of undergraduate study in both the spring and fall semesters.
3. Applicants must be enrolled as full-time undergraduate majors in the Department of Media Arts.
4. Additional requirements specific to each award are available in the Scholarship section of the Department of Media Arts website.

Application

Applications are accepted via links in the Scholarship section of the Department of Media Arts website (mediaarts.unt.edu/scholarships) in the Spring semester after the call for applications is posted. Please refer to that website for the most up-to-date information, application instructions, and eligibility requirements.

Majors

Converged Broadcast Media, BA

In the Converged Broadcast Media program, you will receive a comprehensive education in media convergence, broadcast television, and their social media and Internet components. In addition, you will learn about live TV news broadcasting, live on-location production, sports, entertainment and political events coverage.

The Bachelor of Arts with a major in Converged Broadcast Media integrates a broad and thorough overview of the ever-changing electronic news media, with intermediate and advanced courses in writing and reporting for radio, television and the Internet; interviewing and performance; shooting and editing for television; television and radio news producing; news media analysis; electronic news management; plus classes in legal and ethical issues and covering cross-cultural communities. Students further develop their skills through NTTV, KNTU-FM and their web sites. An optional certificate in television news producing is also available within the major.

Admission to the major and initial requirements

Note: Only Media Arts (MRTS) and Converged Broadcast Media (CBCM) majors can take MRTS Courses.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements (excluding the foreign language requirement).

Major Requirements

Students must complete 42 hours in the major (at least 33 advanced), including:

Required courses

- MRTS 1330 - Foundations of Media Arts
- MRTS 2010 - Introduction to Media Arts Writing
- MRTS 2210 - Introduction to Media Arts Production
- MRTS 3500 - Reporting, Videography and Editing for Digital Media
- MRTS 3525 - Content Development for Digital Media
- MRTS 3560 - Interviewing and Performance for Electronic News
- MRTS 4320 - Media Law and Regulations
- MRTS 3365 - Media Ethics
- MRTS 4480 - Internship in Media Arts

Additional requirements

15 hours of advanced MRTS electives.

No more than 9 hours of MRTS practicum, internship or special problem courses may be applied to the 42 hours of MRTS courses required for the degree.

Other course requirements, 6 hours

Students must complete 6 hours of a foreign language, equivalent to 1010 and 1020 in one language, or demonstrate proficiency at the Elementary II (1020) level.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

CBCM majors must maintain a UNT GPA of 2.75. CBCM major students whose GPAs fall below 2.75 cannot enroll in any Media Arts classes until they return their UNT GPA to 2.75 or better.

A minimum 2.0 cumulative UNT GPA and a 2.75 major GPA is required to graduate. Only 12 hours of MRTS courses taken at other institutions may be applied toward the major.

Students majoring in Converged Broadcast Media are required to have a minimum grade of C in all MRTS courses to count towards the major. Students may have only two attempts for a grade of C or better for each required MRTS course.

Students must observe prerequisites for each MRTS course. If a student has not completed prerequisites for a course with a grade of C or better, the student is subject to administrative drop from the course without notice. Prerequisites are listed with individual course descriptions.

Students may register for only one section of a course at a time. Students registered for more than one section of a course will be dropped from all sections of that course without notice. The policy does not apply to courses such as special topics, which may bear the same course number but different topics and are therefore different courses.

Specific competency and departmental approval for internship, seminar and special problems courses are required.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MRTS 1330 - Foundations of Media Arts	3 hours	MRTS 2010 - Introduction to Media Arts Writing	3 hours
Communication core	3 hours	MRTS 2210 - Introduction to Media Arts Production	3 hours
Component Area Option core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Life & Physical Science core	3 hours
Mathematics core	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Language, Philosophy & Culture core	3 hours	MRTS 3500 - Reporting, Videography and Editing for Digital Media	3 hours
Life & Physical Science core	3 hours	MRTS 3560 - Interviewing and Performance for Electronic News	3 hours
CLASS Foreign Language-elementary	3 hours	Social & Behavioral Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MRTS 3525 - Content Development for Digital Media	3 hours	MRTS 3365 - Media Ethics	3 hours
MRTS 4320 - Media Law and Regulations	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	MRTS elective-advanced	3 hours
Component Area A core	3 hours	MRTS elective-advanced	3 hours
MRTS elective-advanced	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
MRTS elective-advanced	3 hours	MRTS 4480 - Internship in Media Arts	1–3 hours*
MRTS elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

* Students are required to take 3 hours of internship.

Media Arts, BA

A Bachelor of Arts with a major in media arts provides a strong, theoretical education combined with hands-on experience utilizing the same tools used by industry professionals.

Admission to the major and initial requirements

Note: Only Media Arts (MRTS) and Converged Broadcast Media (CBCM) majors can take MRTS courses.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences degree requirements (excluding the foreign language requirement).

Major requirements

Students must complete 42 hours (at least 33 advanced) in the major, including:

Required courses

- MRTS 1330 - Foundations of Media Arts
- MRTS 2010 - Introduction to Media Arts Writing
- MRTS 2210 - Introduction to Media Arts Production

Production and performance, 6 hours

6 hours of advanced credit in production and performance courses selected from:

- MRTS 3210 - Audio Production
- MRTS 3220 - Multi Camera Studio Production
- MRTS 3230 - Film Style Production
- MRTS 3260 - Introduction to Level Design
- MRTS 3300 - Radio and Television Announcing
- MRTS 3330 - Sports Broadcasting I
- MRTS 3340 - Sports Broadcasting II
- MRTS 3400 - Intermediate Screenwriting
- MRTS 3482 - Radio Practicum
- MRTS 3500 - Reporting, Videography and Editing for Digital Media
- MRTS 3502 - Television Practicum II
- MRTS 3525 - Content Development for Digital Media
- MRTS 3540 - Fundamentals of Motion Design
- MRTS 3560 - Interviewing and Performance for Electronic News
- MRTS 4140 - Advanced Film Production I
- MRTS 4150 - Cinematography
- MRTS 4210 - Advanced Audio Production
- MRTS 4400 - Advanced Film Production II
- MRTS 4405 - Documentary Production
- MRTS 4411 - Video Production Topics
- MRTS 4412 - Film Production Topics
- MRTS 4500 - Advanced Screenwriting
- MRTS 4650 - Location Recording and Post Sound Production
- MRTS 4740 - Editing I
- MRTS 4745 - Editing II
- MRTS 4755 - Virtual Studio Production
- MRTS 4810 - Directing Narrative Media
- MRTS 4820 - Producing and Managing Narrative Media

Industry studies, 6 hours

6 hours of advanced credit in industry studies courses selected from:

- MRTS 3350 - History of Broadcasting in Britain
- MRTS 3355 - Contemporary Broadcasting in Britain
- MRTS 3365 - Media Ethics
- MRTS 3410 - Intermediate Topics in Media Studies
- MRTS 3420 - Histories of Latin/x American Media
- MRTS 3615 - Understanding Media Industries
- MRTS 3620 - Digital Media and Society
- MRTS 3630 - Game Studies: Players, Culture and Industry
- MRTS 4255 - Fans and Transformative Works
- MRTS 4320 - Media Law and Regulations
- MRTS 4360 - Global Media
- MRTS 4430 - Media Management
- MRTS 4435 - Media Marketing and Branding
- MRTS 4445 - Media in the 21st Century
- MRTS 4450 - Topics in Media Industry Studies
- MRTS 4465 - Writing for Television
- MRTS 4466 - Advanced Television Writing
- MRTS 4470 - Topics in Media Writing
- MRTS 4630 - Film Festivals and Markets
- MRTS 4665 - Gender, Race and Digital Media
- MRTS 4675 - Media and Power in Latin America
- MRTS 4850 - Television News Producing

History or criticism, 6 hours

6 hours of advanced credit in history or criticism courses selected from:

- MRTS 3350 - History of Broadcasting in Britain
- MRTS 3410 - Intermediate Topics in Media Studies
- MRTS 3420 - Histories of Latin/x American Media
- MRTS 3445 - Video Game Histories
- MRTS 3450 - U.S. Radio History
- MRTS 3460 - Diversity in U.S. Cinema
- MRTS 3465 - American Film History
- MRTS 3470 - International Film History to 1945
- MRTS 3475 - International Film History from 1945
- MRTS 3610 - Film and Television Analysis
- MRTS 3620 - Digital Media and Society
- MRTS 3630 - Game Studies: Players, Culture and Industry
- MRTS 3640 - Scene Analysis
- MRTS 4125 - History and Theory of Film Remakes
- MRTS 4215 - British Cinema and Television
- MRTS 4225 - Women in Film
- MRTS 4230 - Affect, Emotion and the Movies
- MRTS 4235 - Masculinities in the Movies
- MRTS 4240 - Hitchcock Films
- MRTS 4250 - Cinema Beyond the West
- MRTS 4255 - Fans and Transformative Works
- MRTS 4350 - Media Authors
- MRTS 4410 - Topics in Digital Media Studies
- MRTS 4415 - Topics in Film and Television Studies
- MRTS 4530 - Gender and Sexuality in the Horror Film
- MRTS 4540 - Lesbian, Gay and Queer Film and Video
- MRTS 4550 - Cinema Verite
- MRTS 4570 - Game Genre: Adventure Games
- MRTS 4660 - Gender and Gaming
- MRTS 4665 - Gender, Race and Digital Media
- MRTS 4675 - Media and Power in Latin America

Additional requirements

15 hours of advanced MRTS electives.

No more than 6 hours of MRTS practicum, internship or special problem courses may be applied to the 42 hours of MRTS courses required for the degree.

Other course requirements, 6 hours

Students must complete 6 hours of a foreign language, equivalent to 1010 and 1020 in one language, or demonstrate proficiency at the Elementary II (1020) level.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

MRTS majors must maintain a UNT GPA of 2.75. MRTS major students whose GPAs fall below this standard will be informed of their status by the Media Arts department and will not be able to take any classes in the Media Arts department until they return their UNT GPA to 2.75 or better.

A minimum 2.0 cumulative UNT GPA and a 2.75 major GPA is required to graduate. Only 12 hours of MRTS courses taken at other institutions may be applied toward the 42-hour requirement toward the major.

Students majoring in Media Arts are required to have a minimum grade of C in all MRTS courses to count toward the major. Students may have only two attempts for a grade of C or better for each required MRTS course.

Students must observe prerequisites for each MRTS course. If a student has not completed prerequisites for a course with a grade of C or better, the student is subject to administrative drop from the course without notice. Prerequisites are listed with individual course descriptions.

Students may register for only one section of a course at a time. Students registered for more than one section of a course will be dropped from all sections of that course without notice. The policy does not apply to courses such as special topics, which may bear the same course number but are different topics and are therefore different courses.

Specific competency and departmental approval for internship, seminar and special problem courses are required.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MRTS 1330 - Foundations of Media Arts	3 hours	MRTS 2010 - Introduction to Media Arts Writing	3 hours
Communication core	3 hours	MRTS 2210 - Introduction to Media Arts Production	3 hours
Component Area Option A core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Mathematics core	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
CLASS Foreign Language-elementary	3 hours	Industry Studies selection	3 hours
History or Criticism selection	3 hours	Production and Performance selection	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Component Area Option A core	3 hours	Social and Behavioral Science core	3 hours
History or Criticism selection	3 hours	MRTS elective-advanced	3 hours
Industry Studies selection	3 hours	MRTS elective-advanced	3 hours
Production and Performance selection	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Diversity and Global Issues	3 hours
MRTS elective-advanced	3 hours	MRTS elective-advanced	3 hours
MRTS elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Digital Media Studies certificate (MRTS)

In this certificate program, students learn to utilize and analyze a variety of digital media tools for the purposes of communication, collaboration and research, and to develop social, political, academic and professional networks. The certificate is interdisciplinary; students must take the three core courses from MRTS, COMM and TECM. Applicable electives may be taken from any department with permission.

Certificate requirements, 15 hours

Students may receive a certificate in digital media studies by successfully completing the following courses with a grade of B or higher.

Required courses, 9 hours

- COMM 3420 - Communication and New Technology
- MRTS 3620 - Digital Media and Society
- TECM 1500 - New Media Experience

Electives, 6 hours

Select from the following courses:

- COMM 3820 - Social Media Perspectives
- COMM 4320 - Communications and Virtual Gaming
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 4270 - Strategic Social Media
- MRTS 3445 - Video Game Histories
- MRTS 3525 - Content Development for Digital Media
- MRTS 3630 - Game Studies: Players, Culture and Industry
- MRTS 4415 - Topics in Film and Television Studies (when taught as "Media Genres/Authors - Video Game Authors")
- MRTS 4450 - Topics in Media Industry Studies (when taught as "Digital Distribution")
- MRTS 4665 - Gender, Race and Digital Media
- Internship option (COMM 4800, MRTS 4480 or TECM 4920) with approval from undergraduate advisor
- Other courses approved by undergraduate advisor

Game Studies and Design certificate

The game studies and design certificate is a 15-hour, interdisciplinary certificate. Developed in coordination with Dallas-Fort Worth area game studios, the certificate introduces students to contemporary ideas in game studies, design and project leadership experiences.

Requirements, 15 hours

9 hours in foundational courses are required.

- CSCE 1010 - Discovering Computer Science
- ENGL 3225 - Games, Play, and Stories
- MRTS 3630 - Game Studies: Players, Culture and Industry

6 hours chosen from:

6 hours, with at least 3 hours outside the student's major, chosen from:

- COMM 3720 - Small Group Communication
- COMM 3920 - Organizational Communication
- COMM 4320 - Communications and Virtual Gaming
- ENGL 3140 - Beginning Fiction Writing
- ENGL 3500 - Beginning Game Writing Workshop: Storytelling Through Narrative Design
- ENGL 4140 - Advanced Narrative Design for Gaming
- ENGL 4680 - Game Narratives as Literature
- JOUR 3250 - Game Design for Journalism
- MRTS 3250 - Introduction to Game Design
- MRTS 3445 - Video Game Histories
- MRTS 3400 - Intermediate Screenwriting
- MRTS 4350 - Media Authors (when taught as "Video Game Authors")
- MRTS 4465 - Writing for Television
- MRTS 4660 - Gender and Gaming
- MRTS 4740 - Editing I
- Other courses as approved in consultation with the program director

Media Management certificate

This certificate is designed to provide students interested in non-production careers a credential that will be useful in seeking entry-level employment in the electronic media industry.

Required courses, 12 hours

- MRTS 4430 - Media Management

Plus two courses selected from

- MRTS 4320 - Media Law and Regulations
- MRTS 4360 - Global Media
- MRTS 4450 - Topics in Media Industry Studies
- Or other course approved by program advisor

Television News Producing certificate

This certificate program is open to students majoring in MRTS or CBCM. Interested students must apply and be admitted into the restricted television news producing certificate program. Students must complete 18 hours in MRTS courses as described below. An internship in a professional news operation (radio, television, web, etc.) is recommended to supplement the program, but is not required for completion of the certificate.

MRTS courses, 15 hours

- MRTS 1330 - Foundations of Media Arts
- MRTS 2010 - Introduction to Media Arts Writing
- MRTS 2210 - Introduction to Media Arts Production
- MRTS 3500 - Reporting, Videography and Editing for Digital Media
- MRTS 4850 - Television News Producing

Elective, 3 hours

Plus one 3-hour elective course selected from:

- MRTS 3525 - Content Development for Digital Media
- MRTS 4320 - Media Law and Regulations
- MRTS 4430 - Media Management
- MRTS 4450 - Topics in Media Industry Studies

Department of Philosophy and Religion

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Matthew Lampert, Undergraduate Advisor

Faculty

The great virtue of philosophy is that it teaches not what to think, but how to think. It is the study of meaning, of the principles underlying conduct, thought and knowledge. The skills it hones are the ability to analyze, to question orthodoxies and to express things clearly. However arcane some philosophical texts may be … the ability to formulate questions and follow arguments is the essence of education…. Philosophy is, in commercial jargon, the ultimate "transferable work skill."

— The Times, London, August 15, 1998

Philosophy, from the Greek words "philein" and "sophia" translated as "love of wisdom", has always been an important part of higher education. In the early Greek proto-universities, the Academy of Plato and the Lyceum of Aristotle, philosophy was the very foundation of all study. It has been studied as an end in itself and in its relation to other areas. Most specialized sciences find their origins in philosophical questions. It is also an excellent preparation for studies in graduate and professional schools.

Studying philosophy develops analytic skills and problem-solving abilities that are extremely useful in almost any academic or scientific field and in a variety of professional careers, such as journalism, business, law, medicine and government. It provides insight into our cultural heritage through courses in the history of ideas and critical insight into many other fields in the humanities and the sciences through such courses as ethical theories, social-political philosophy, philosophy of technology, and philosophy of ecology. Philosophy seeks to teach students methods of thinking about perennial questions—such as 'what is truth' and 'what is beauty'—and about the timeless themes of goodness and wisdom.

The study of religions is also an important part of higher education. Religions are an integral part of our history, social life, politics, economy, foreign policy and domestic interactions. The study of religions exposes students to the beliefs, practices and histories of various religious traditions and analyzes their significance to societies. It also provides the opportunity for inter-religious comparison and evaluation. It's an interdisciplinary major, with courses from many departments, such as philosophy, history, anthropology, sociology, political science, art history, English and music.

The study of religions helps students think and write critically, engage in big questions about worldviews, and apply disciplinary knowledge to local and global issues. It equips students for employment in the public, private and nonprofit sectors including medicine, law, business, publishing, social service and teaching. This major is also excellent preparation for graduate and professional schools.

Pre-theology and pre-seminary

Students intending to pursue post-baccalaureate work in seminaries or divinity schools should consult with the undergraduate advisor of the Department of Philosophy and Religion.

Scholarships and financial aid

A $500 award is given to the John Kimmey Memorial Scholar in the spring semester. The scholar is selected by the department and is the honoree at the Honors Day convocation.

The Samuel and Mabel Danford Scholarship in Religion awards $1,000 to one student every fall term. A student must be a religion major to apply. Inquiries concerning the scholarship should be directed to philosophy@unt.edu.

A scholarship in honor of Richard Owsley provides an annual award of $500 to a recipient who submits and wins an essay competition held each spring. The topic of the essay should fall within the scope of continental philosophy.

Majors

Philosophy, BA

A Bachelor of Arts with a major in philosophy involves the study of the history of Western, and Asian philosophy and religion, spanning logic, metaphysics, epistomology, ethical theory, social-political philosophy, existentialism, and the philosophy of art. Our coursework not only insight into the world's intellectual resources, but also into other fields of study in the sciences and humanities. Philosophy sheds light on oneself, others, and the natural and social worlds and it's excellent preparation for life and careers after graduation.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in philosophy.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

The major requires completion of 33 hours in philosophy including:

- PHIL 2050 - Logic and Critical Thinking
  or
- PHIL 3300 - Symbolic Logic

- PHIL 3310 - Ancient Greek Philosophy
- PHIL 3330 - Modern European Philosophy

- PHIL 3600 - Philosophy of Religion
  or
- PHIL 4100 - Epistemology
  or
- PHIL 4400 - Metaphysics

- PHIL 3120 - Social and Political Philosophy
  or
- PHIL 3400 - Ethical Theory
  or
- PHIL 4150 - Feminism

- PHIL 3620 - Hinduism, Jainism, Sikhism
  or

- PHIL 3670 - Chinese Philosophy

  or
- PHIL 3375 - Latin American Philosophy

  or
- PHIL 3680 - Buddhism, Daoism, Shintoism

- PHIL 3250 - Philosophy of Science

  or
- PHIL 3450 - Philosophy of Technology

  or
- PHIL 3650 - Religion and Science

  or
- PHIL 4200 - Science, Technology and Society

- PHIL 3660 - Religion and the Environment

  or
- PHIL 4450 - Philosophy of Ecology

  or
- PHIL 4700 - Environmental Philosophy

  or
- PHIL 4740 - Environmental Justice

- PHIL 4970 - Philosophy Capstone

- 6 additional hours of philosophy advanced courses

Other course requirements

None.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Creative Arts core	3 hours
CLASS Foreign Language-elementary	3 hours	CLASS Foreign Language-elementary	3 hours
PHIL 2050 - Logic and Critical Thinking	3 hours	PHIL 3400 - Ethical Theory	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PHIL 3310 - Ancient Greek Philosophy	3 hours	PHIL 3330 - Modern European Philosophy	3 hours
PHIL 4200 - Science, Technology and Society	3 hours	PHIL 3900 - Philosophy of Food	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
CLASS Foreign Language-intermediate	3 hours	CLASS Foreign Language-intermediate	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Social and Behavioral Science core	3 hours	PHIL 4150 - Feminism	3 hours
PHIL 3450 - Philosophy of Technology	3 hours	PHIL 3680 - Buddhism, Daoism, Shintoism	3 hours
PHIL 4700 - Environmental Philosophy	3 hours	PHIL 4400 - Metaphysics	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
PHIL 3650 - Religion and Science	3 hours	PHIL 4970 - Philosophy Capstone	3 hours
PHIL 4500 - Existentialism	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Philosophy, BA with grad track option leading to Philosophy, MA

Admission requirements

1. Applicants for the grad track option must be students in the UNT College of Liberal Arts and Social Sciences pursuing the Bachelor of Arts in philosophy degree.
2. Students may apply for the grad track option during their junior year and must have completed at least 75 credit hours at the time of application to grad track.
3. Minimum of 3.5 cumulative GPA required at the time of application submission.
4. The student will provide two recommendation forms from philosophy and religion faculty members who can evaluate the student's ability to complete graduate level work.
5. The application will be reviewed by the philosophy and religion curriculum committee and the undergraduate and graduate advisors.

Requirements

Students in the grad track program may select up to 6 hours of 5000-level PHIL courses to fulfill the 6 hours of advanced philosophy courses required for the BA degree in Philosophy. Students may select the remaining courses (up to 12 hours total) from 5000-level PHIL courses chosen to align with the required courses for the major in Philosophy. These courses can be comprised from the following Groups. If none of these courses are available, the student may select suitable alternatives with approval from the Director of Graduate Studies and the Director of Undergraduate Studies.

Group A - Environmental Philosophy

- PHIL 5000 - Environmental Ethics (for PHIL 4700) or
- PHIL 5010 - Seminar in the Philosophy of Ecology (for PHIL 4450) or
- PHIL 5700 - Environmental Philosophy (for PHIL 4740) or
- PHIL 5800 - Philosophies of Climate Change (for PHIL 3475)

Group B - History of Philosophy

- PHIL 5100 - Ancient Greek Philosophy (for PHIL 3310) or
- PHIL 5200 - Modern European Philosophy (for PHIL 3330) or
- PHIL 5250 - Topics in the History of Philosophy or
- PHIL 5900 - Special Problems

Group C - Normativity and Values

- PHIL 5150 - Feminist Philosophy (for PHIL 4150)
- PHIL 5300 - Social and Political Philosophy (for PHIL 3120) or
- PHIL 5400 - Seminar in Ethical Theory (for PHIL 3400) or
- PHIL 5500 - Philosophy of Science and Technology (for PHIL 3450)

Group D - Philosophy of Religion

- PHIL 5600 - Philosophy of Religion (for PHIL 3600) or
- PHIL 5650 - Asian Philosophies and Religions in Practice (for PHIL 3620)

All remaining courses for Philosophy, BA must be completed.

Note

Student progress will be monitored on a semester-by-semester basis by the directors of graduate and undergraduate studies. Students must meet with each of the directors and must maintain a 3.0 GPA in the graduate coursework. Students must complete the bachelor's degree prior to being fully admitted to the MA in philosophy. A student can take a maximum of 12 hours of graduate courses through the grad track pathway.

Minors

Environmental studies minor

The minor in environmental studies is interdisciplinary and requires 18 hours (6 classes): at least two classes in Philosophy, and up to four from a list of departments including ANTH, BIOL, ECON, ENGL, GEOG, HIST, SOCI, WGST, and more.

The Department of Philosophy and Religion Undergraduate Advisor may approve courses that are not on the pre-approved list, such as topics courses that address environmental issues.

Complete 18 hours, including 6 advanced, from the following:

At least two courses must be from the Department of Philosophy and Religion and at least two from other departments from the list of pre-approved classes.

Any courses not selected from the list must be approved by the Philosophy and Religion undergraduate advisor.

- ANTH 4400 - Environmental Anthropology
- BIOL 1132 - Environmental Science
- BIOL 2140 - Principles of Ecology
- BIOL 2251 - Biodiversity and Conservation of Animals
- BIOL 3160 - Conservation Biology
- BIOL 3170 - Plants and Human Society
- EADP 2030 - Climate Change Resilience
- EADP 4015 - Flood Plain Management
- ECON 4440 - Economics of Natural Resources and Environment
- ENGL 4650 - Literature and the Environment
- GEOG 1710 - Earth Science
- GEOG 2170 - Culture, Environment and Society
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 3200 - Sustainability
- GEOG 3800 - Weather and Climate
- GEOG 4250 - Climatology
- GEOG 4260 - Oceanography

- GEOG 4420 - Capitalism, Nature and Climate Change
- GEOL 1610 - Introduction to Geology
- GEOL 3010 - Environmental Geology
- GEOL 3020 - Historical Geology
- GEOL 3030 - Earthquakes and Volcanoes
- HIST 4275 - American Environmental History
- HIST 4276 - Animal Histories
- HMGT 2810 - Introduction to International Sustainable Tourism
- HMGT 2850 - Introduction to Agritourism
- PHIL 2500 - Environment and Society
- PHIL 3475 - Philosophy of Climate Change
- PHIL 3660 - Religion and the Environment
- PHIL 3850 - Philosophy of Animals
- PHIL 3900 - Philosophy of Food
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 4054 - Tracing Darwin's Path
- PHIL 4200 - Science, Technology and Society
- PHIL 4450 - Philosophy of Ecology
- PHIL 4650 - Philosophy of Water
- PHIL 4700 - Environmental Philosophy
- PHIL 4740 - Environmental Justice
- PUBH 3025 - Environmental Health
- SOCI 4170 - Environmental Sociology
- WGST 4250 - Gender and Sustainable Development

Jewish Studies minor

The Jewish studies minor offers an interdisciplinary curriculum that provides students with knowledge and expertise of Jewish thought, religion, history, languages, and cultures. It requires 18 credit hours (6 courses) from an approved list of courses. Courses not included in the approved list may be counted toward the minor with approval from the Jewish Studies Director.

Jewish studies minor courses

Requires 18 hours from the approved list below.

- ENGL 3370 - The Bible as Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4660 - Literature and the Holocaust
- HIST 3308 - Ancient Israel
- HIST 3460 - Modern Middle Eastern History
- HIST 3470 - History of the Israeli-Palestinian Conflict
- HIST 3620 - Nazism: Symbolism and Archaeology
- HIST 4070 - World War II: European Theater
- HIST 4073 - World War II: The Soviet-German War
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4247 - A History of Jews in the Middle East
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4475 - Jewish Women in Modern America
- MUMH 4800 - Nazism, Judaism and the Politics of Classical Music in Germany
- MUMH 4810 - Jews, Judaism, Anti-Semitism and Opera
- PHIL 2070 - World Religions
- PHIL 3560 - Judaism
- PHIL 3320 - Medieval Philosophy
- PHIL 3510 - Hebrew Bible
- PHIL 3520 - Early Christian Thought
- PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic
- PHIL 3540 - Judaism and Philosophy
- PHIL 3650 - Religion and Science
- PSCI 4150 - Religion and Politics in the United States
- THEA 4260 - History of the Broadway Musical
- THEA 4395 - Theatre and the Holocaust
- WLLC 3400 - The Holocaust and Film

Additional information

Courses on related topics that are not included in this list may count toward the minor with approval from the Jewish Studies director. For more information or to sign up for a minor in Jewish studies, contact jewish-studies@unt.edu.

Philosophy minor

A minor in philosophy consists of 18 semester hours, including 9 advanced hours.

Religious Studies minor

A minor in Religious Studies consists of 18 semester hours, 9 hours must be PHIL courses; at least 6 hours must be at the advanced level. Any courses not selected from the approved list must be approved by the Department of Philosophy and Religion undergraduate advisor.

Philosophy core, 9 hours

Select at least 9 hours of PHIL courses:

- PHIL 2070 - World Religions
- PHIL 3560 - Judaism
- PHIL 3140 - Religion and American Society
- PHIL 3160 - Philosophy of Death and Dying
- PHIL 3500 - Christianity and Philosophy
- PHIL 3510 - Hebrew Bible
- PHIL 3520 - Early Christian Thought
- PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic
- PHIL 3540 - Judaism and Philosophy
- PHIL 3570 - Islam and Philosophy
- PHIL 3600 - Philosophy of Religion
- PHIL 3620 - Hinduism, Jainism, Sikhism
- PHIL 3630 - Jainism
- PHIL 3650 - Religion and Science
- PHIL 3660 - Religion and the Environment
- PHIL 3670 - Chinese Philosophy
- PHIL 3680 - Buddhism, Daoism, Shintoism
- PHIL 3960 - Topics in Religion
- PHIL 4500 - Existentialism

Religion electives

In addition to the Philosophy courses, students may select up to 9 hours from the following:

- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 4751 - Culture, Religion and Ritual
- ARTH 4804 - Medieval Art
- ENGL 3370 - The Bible as Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4410 - Chaucer
- ENGL 4440 - Milton
- ENGL 4660 - Literature and the Holocaust
- HIST 3308 - Ancient Israel
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3550 - Imperial China
- HIST 3570 - Japanese History
- HIST 3762 - Rome: The Biography of a City
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4008 - Ancient Religion and Magic
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4218 - Early Medieval Europe, ca. 312–1095
- HIST 4219 - Late Medieval Europe, 1095 to 1400
- HIST 4223 - Crusade and Jihad
- HIST 4230 - The Age of the Reformation
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4247 - A History of Jews in the Middle East
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4462 - Religion in American History
- HIST 4475 - Jewish Women in Modern America
- PSCI 4150 - Religion and Politics in the United States
- SOCI 3700 - Sociology of Religion
- THEA 4395 - Theatre and the Holocaust
- WLLC 3400 - The Holocaust and Film

Undergraduate Academic Certificates

Jewish Studies certificate

The Jewish Studies certificate allows students to pursue Jewish Studies without commitment to the full minor. It offers an interdisciplinary curriculum that provides students with knowledge and expertise of Jewish thought, religion, history, and cultures. It requires 12 credit hours (4 courses), including 9 advanced hours, from an approved list of courses. Courses not included in the approved list may be counted toward the certificate with approval from the Jewish Studies director.

For more information or to sign up for the certificate, contact jewish-studies@unt.edu.

Jewish Studies certificate courses

Requires 12 hours from the approved list below.

- ENGL 3370 - The Bible as Literature
- ENGL 4270 - Modern Jewish Literature
- ENGL 4660 - Literature and the Holocaust
- HIST 3308 - Ancient Israel
- HIST 3460 - Modern Middle Eastern History
- HIST 3470 - History of the Israeli-Palestinian Conflict
- HIST 3620 - Nazism: Symbolism and Archaeology
- HIST 4070 - World War II: European Theater
- HIST 4073 - World War II: The Soviet-German War
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4247 - A History of Jews in the Middle East
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4435 - Jewish Americans and Popular Culture
- HIST 4475 - Jewish Women in Modern America
- MUMH 4800 - Nazism, Judaism and the Politics of Classical Music in Germany
- MUMH 4810 - Jews, Judaism, Anti-Semitism and Opera
- PHIL 2070 - World Religions
- PHIL 3320 - Medieval Philosophy
- PHIL 3510 - Hebrew Bible
- PHIL 3520 - Early Christian Thought
- PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic
- PHIL 3540 - Judaism and Philosophy
- PHIL 3650 - Religion and Science
- PSCI 4150 - Religion and Politics in the United States
- THEA 4260 - History of the Broadway Musical
- THEA 4395 - Theatre and the Holocaust
- WLLC 3400 - The Holocaust and Film

Department of Political Science

Main Departmental Office
Wooten Hall, Room 125

Mailing address:
1155 Union Circle, #305340
Denton, TX 76203-5017
940-565-2276
Web site: www.politicalscience.unt.edu

Political Science Advising Office
Wooten Hall, Room 141
940-565-2276

John Ishiyama, Chair

Faculty

Department courses meet the needs of both undergraduate and graduate students preparing to enter national, state and local government employment; public and private foreign service; law; politics; public and private research; writing and reporting of public affairs and political science; and government and social science teaching.

Pre-law information

UNT annually prepares many students to enter law school. To be competitive with nationally recognized law schools, a grade point average of 3.5 or higher is recommended, and a GPA of 3.0 or higher is recommended for application to any law school. While many students undertake a liberal arts degree, law schools place important emphasis on the diversity of their student body and seek persons from different backgrounds, including the natural sciences. Consequently, there is no required pre-law program of courses, and students from any major are encouraged to consider law school; however, UNT offers an array of courses that will help prepare students for law school.

Future law school students should take courses that emphasize writing and oral skills; analytical reasoning; reading comprehension and integration of multiple texts; and logical reasoning. Pre-law students may wish to consider a certificate of legal studies (contact the department for more information). Pre-law students should take the Law School Admission Test (LSAT) during the summer before or fall term/semester of their senior year. Students should plan to attend a pre-law orientation session early in their career (freshman or sophomore year) at UNT. For more information, check www.cas.unt.edu/advising/prelaw/ or send inquiries to prelaw@unt.edu.

Political science requirement

The university may not award a baccalaureate degree or a lesser degree or academic certificate unless the student has completed 6 hours of credit in American government that include consideration of the Constitutions of the United States and Texas. The university may determine that a student has met the requirement in whole or in part on the basis of credit transferred from another accredited college or upon successful completion of an advanced standing examination. Completion of 12 semester hours of upper division ROTC courses may be substituted for PSCI 2305. The student may satisfy part (3 hours) or all of the 6-hour political science requirement by credit through examination.

Global learning programs

The Department of Political Science is home to several global learning programs. Students may participate in the global learning program in London, where courses on British politics, British legal systems, European politics and terrorism have been taught. Students also meet with members of the British Parliament, key leaders of British political parties, cabinet ministers, and judges and practitioners in the British legal system. The summer program in The Hague, Netherlands, brings students to the International Criminal Tribunal for the former Yugoslavia where they study international law and attend sessions of the court. Students also meet with judges, members of the prosecutor's office and other top officials.

Degree audits

During the sophomore year of enrollment, the student should make a degree audit. The student must meet with the departmental advisor, with whom an advisory sheet is made. Advisory sheets are then sent to General Academic Building, Room 220, for the completion of the degree audit. The process should be completed in time for the next registration period.

Pender Scholars

The department annually awards two $1,000 scholarships based on merit to incoming students (fall term) who declare their intention to major in political science. The awardees are known as Pender Scholars in honor of the first chair of the political science department, J.W. "Dad" Pender.

High school seniors must rank in the top quarter of their class and have a score of at least 1100 on the SAT (or its equivalent). Transfer students must have a 3.5 grade point average and a score of at least 1100 on the SAT (or its equivalent). Application deadline is April 1; awards are announced September 15. Contact the undergraduate advisor in Wooten Hall, Room 141, for more information.

Majors

International Studies with a concentration in Business and Economics, BA

In our increasingly interconnected world, businesses and government agencies have increased their search for employees who understand world issues. A Bachelor of Arts with a major in international studies and a concentration in business and economics makes you a valuable asset to any organization with whom you choose to work.

This major is designed to prepare students for jobs in the public and private sectors, where globalization is increasing dramatically, or to enter a graduate degree program.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Majors need 42 hours from the list of approved courses below, including:

- INST 2100 - Introduction to International Studies
- INST 4852 - Critical Issues in Global Economics Senior Seminar

  or
- INST 4800 - International Studies Internship

Business and Economics concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

Economics, 9 hours

- ECON 1110 - Principles of Macroeconomics
- ECON 4100 - Comparative Economic Systems
- ECON 4420 - Open Economy Macroeconomics
- ECON 4850 - International Trade
- ECON 4855 - U.S.-Mexico Economic Relations
- FINA 4500 - International Finance
- GEOG 3010 - Economic Geography
- GEOG 4210 - Urban Geography
- INST 4854 - Political Economy of the Middle East

Logistics & Business Practice, 12 hours

- BCIS 4730 - International Issues of Information Technology
- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4245 - Geography of International Development
- HMGT 2800 - Foundations of International Travel and Tourism
- HMGT 2810 - Introduction to International Sustainable Tourism
- LSCM 4360 - Global Alliances and International Supply Chain Management
- MDSE 2750 - Consumers in a Global Market
- MDSE 4003 - Global Discovery: Hong Kong/China
- MDSE 4004 - Global Discovery: Europe
- MDSE 4010 - Global Sourcing
- MGMT 4660 - International Management Perspectives
- MKTG 2650 - Culture and Consumption

Marketing, 6 hours

- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors
- MKTG 4280 - Global Marketing Issues and Practice

Regional courses, 9 hours

- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4320 - Contemporary Middle East: Society, Culture and Politics
- ECON 4855 - U.S.-Mexico Economic Relations
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3550 - Imperial China
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 3600 - Evolution of Warfare to Napoleon
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4100 - Modern Britain
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4125 - The Military History of England and its Colonies
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 3190 - Mexico, 1810–Present
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4565 - Chinese Military History, 1750-Present

- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- INST 4854 - Political Economy of the Middle East
- INST 4855 - International Relations and Politics of the Middle East
- INST 4857 - Human Security in the 21st Century
- INST 4859 - Middle East Politics and Society through Film
- INST 4860 - Asian Youth: Cultures, Activism, Media
- INST 4861 - Putin's Russia
- MUET 2000 - Global Pop: Music, Media, and Society
- MUET 3030 - Music Cultures of the World
- MUET 3050 - Music of Africa
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 3375 - Latin American Philosophy
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3200 - Chinese Culture and Society
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture
- WLLC 3420 - German Graphic Novels
- WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction
- WLLC 3600 - Japanese Popular Culture

Other course requirements

- 6 upper-division hours in a foreign language of the student's choice. International students who attended high school in a non-native English-speaking country and have been exempted from the College of Liberal Arts and Social Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- Latin and Sign Language courses will not count toward this requirement.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other information

ANTH 4701, PSCI 3700, PSCI 4700, PSCI 4820, HIST 4260, HIST 4262, HIST 4263, WGST 4260 can apply with advisor approval.

Students are strongly encouraged to take advantage of Study Abroad opportunities. Students are also encouraged to do an internship related to their area of concentration; only 3 hours will apply towards the major.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
INST 2100 - Introduction to International Studies	3 hours	ECON 1110 - Principles of Macroeconomics	3 hours
MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	CLASS Foreign Language-elementary	3 hours
CLASS Foreign Language-elementary	3 hours	Communication core	3 hours
Communication core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Creative Arts core	3 hours	CLASS Foreign Language-intermediate	3 hours
Life and Physical Sciences core	3 hours	Component Area Option core	3 hours
Language, Philosophy and Culture core	3 hours	Economics selection	3 hours
CLASS Foreign Language-intermediate	3 hours	Logistics and Business Practice selection	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors	3 hours	MKTG 4280 - Global Marketing Issues and Practice	3 hours
Regional selection	3 hours	Economics selection	3 hours
Logistics and Business Practice selection	3 hours	Regional selection	3 hours
Foreign Language-advanced	3 hours	Foreign Language-advanced	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	INST Senior Seminar or Internship	3 hours
Logistics and Business Practice selection	3 hours	CLASS Distribution-Diversity and Global Issues	3 hours
Logistics and Business Practice selection	3 hours	Regional selection	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

International Studies with a concentration in Global Conflict, BA

In our increasingly interconnected world, businesses and government agencies have increased their search for employees who understand world issues, especially global conflicts and resolutions. A Bachelor of Arts with a major in international studies and a concentration in global conflict makes you a valuable asset to any organization with whom you choose to work.

This major is designed to prepare students for jobs in the public and private sectors, where globalization is increasing dramatically, or to enter a graduate degree program.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Majors need 42 hours from the list of approved courses below, including:

- INST 2100 - Introduction to International Studies
- INST 4851 - International Security

  or
- INST 4800 - International Studies Internship

Global Conflict concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

World Politics, 9 hours

- GEOG 3600 - Political Geography
- INST 4854 - Political Economy of the Middle East
- INST 4855 - International Relations and Politics of the Middle East
- INST 4859 - Middle East Politics and Society through Film
- INST 4861 - Putin's Russia
- PSCI 3600 - Governments and Politics around the World
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- PSCI 4661 - Politics of Autocracy
- PSCI 4662 - Civil-Military Relations
- PSCI 4670 - Third World Politics
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4845 - Foreign Policy Around the World

International Security and Conflict Resolution, 9 hours

- CJUS 4330 - Domestic and International Terrorism
- COMM 3320 - Communication and Conflict Management
- EADP 3010 - Principles of Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 4020 - Managing Disasters at the National Level
- EADP 4030 - Continuity Planning for Crises
- EADP 4040 - International Disasters
- EADP 4050 - Social Vulnerability in Disasters
- EADP 4090 - Terrorism and Emergency Management
- PADM 2200 - Introduction to Conflict Resolution
- PADM 4000 - Mediation
- PADM 4050 - Negotiation
- PSCI 3810 - International Relations
- PSCI 4821 - International Conflict
- PSCI 4827 - Negotiation and Diplomacy
- PSCI 4829 - International Crisis Forecasting

Global Modern History and Contemporary Issues, 9 hours

- ANTH 4300 - Migrants and Refugees
- ANTH 4400 - Environmental Anthropology
- GEOG 4210 - Urban Geography
- GEOG 4420 - Capitalism, Nature and Climate Change
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 3173 - Latin American Food History
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4565 - Chinese Military History, 1750-Present
- INST 4856 - Human Trafficking
- INST 4857 - Human Security in the 21st Century
- INST 4858 - Refugees: Histories and Contemporary Issues
- PHIL 3475 - Philosophy of Climate Change
- PSCI 4520 - International Human Rights
- SOCI 4160 - Developing Societies
- SOCI 4750 - World Population Trends and Problems
- WLLC 3010 - Exploring Global Cultures

Regions Courses, 9 hours

Students may select 9 hours of courses from the Regions Courses section of the Bachelor of Arts with a major in International Studies and a concentration in global perspectives degree.

- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe

- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4320 - Contemporary Middle East: Society, Culture and Politics
- ECON 4855 - U.S.-Mexico Economic Relations
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society
- HIST 3173 - Latin American Food History
- HIST 3190 - Mexico, 1810–Present
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3550 - Imperial China
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4100 - Modern Britain
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4125 - The Military History of England and its Colonies
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4260 - Topics in History
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- INST 4854 - Political Economy of the Middle East
- INST 4855 - International Relations and Politics of the Middle East
- INST 4857 - Human Security in the 21st Century
- INST 4859 - Middle East Politics and Society through Film
- INST 4860 - Asian Youth: Cultures, Activism, Media
- MUET 3030 - Music Cultures of the World
- MUET 3050 - Music of Africa
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 3375 - Latin American Philosophy
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3200 - Chinese Culture and Society
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture
- WLLC 3420 - German Graphic Novels
- WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction
- WLLC 3600 - Japanese Popular Culture

Other course requirements

6 upper-division hours in a foreign language of the student's choice. International students who attended high school in a non-native English-speaking country and have been exempted from the College of Liberal Arts and Social Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.

Latin and Sign Language courses will not count toward this requirement.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other information

ANTH 4701, PSCI 3700, PSCI 4700, PSCI 4820, HIST 4260, HIST 4262, HIST 4263, WGST 4260 can apply with advisor approval.

Students are strongly encouraged to take advantage of Study Abroad opportunities. Students are also encouraged to do an internship related to their area of concentration; only 3 hours will apply towards the major.

International Studies with a concentration in Global Perspectives, BA

In our increasingly interconnected world, businesses and government agencies have increased their search for employees who understand world issues. A Bachelor of Arts with a major in international studies and a concentration in global perspectives makes students a valuable asset to any organization with whom they choose to work.

This major is designed to prepare students for jobs in the public and private sectors, where globalization is increasing dramatically, or to enter a graduate degree program.

Degree requirements

Hours require and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the Degree and Program Requirements in the University Core Curriculum of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Majors need 42 hours from the list of approved courses below, including:

- INST 2100 - Introduction to International Studies

One of the following, 3 hours (depending on area of concentration and in consultation with advisor)

- INST 4851 - International Security
- INST 4853 - Global Development: Issues and Challenges
- INST 4800 - International Studies Internship

Global Perspectives concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

Culture courses, 12 hours

- ANTH 1150 - World Cultures Through Film
- ANTH 2300 - Culture and Society
- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4300 - Migrants and Refugees
- ANTH 4500 - Language and Culture
- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4751 - Culture, Religion and Ritual
- COMM 3620 - Intercultural Communication
- GEOG 2170 - Culture, Environment and Society
- HIST 3460 - Modern Middle Eastern History
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4100 - Modern Britain
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 3190 - Mexico, 1810–Present
- HIST 4224 - History of the Book
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe
- INST 4858 - Refugees: Histories and Contemporary Issues
- MUET 2000 - Global Pop: Music, Media, and Society
- MUET 3030 - Music Cultures of the World
- MUET 3050 - Music of Africa
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- SOCI 4160 - Developing Societies
- WLLC 3000 - Linguistic Landscapes Around the World
- WLLC 3010 - Exploring Global Cultures
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3200 - Chinese Culture and Society
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture
- WLLC 3420 - German Graphic Novels
- WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction
- WLLC 3600 - Japanese Popular Culture

Contemporary Issues, 12 hours

- CJUS 4330 - Domestic and International Terrorism
- EADP 2030 - Climate Change Resilience
- EADP 4010 - Public Health and Disasters

- EADP 4015 - Flood Plain Management
- EADP 4030 - Continuity Planning for Crises
- EADP 4040 - International Disasters
- EADP 4050 - Social Vulnerability in Disasters
- EADP 4090 - Terrorism and Emergency Management
- HIST 3460 - Modern Middle Eastern History
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4391 - War Crimes, Genocide, and Justice
- INST 4856 - Human Trafficking
- INST 4858 - Refugees: Histories and Contemporary Issues
- INST 4860 - Asian Youth: Cultures, Activism, Media
- INST 4861 - Putin's Russia
- PHIL 3475 - Philosophy of Climate Change
- PSCI 3810 - International Relations
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4640 - Revolution and Political Violence
- PSCI 4661 - Politics of Autocracy
- PSCI 4662 - Civil-Military Relations
- PSCI 4670 - Third World Politics
- PSCI 4671 - Globalization and Development
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4800 - The Politics of International Organization
- PSCI 4810 - International Law
- PSCI 4821 - International Conflict
- PSCI 4826 - Women, War and Peace
- PSCI 4827 - Negotiation and Diplomacy
- PSCI 4845 - Foreign Policy Around the World
- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOCI 4210 - Intersectionality
- SOCI 4250 - Gender and Society
- SOCI 3540 - Racial and Ethnic Minorities
- SOCI 4750 - World Population Trends and Problems
- WGST 4350 - Gender and Globalization

Region courses, 12 hours

- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4320 - Contemporary Middle East: Society, Culture and Politics
- ECON 4855 - U.S.-Mexico Economic Relations
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 3600 - Evolution of Warfare to Napoleon
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4100 - Modern Britain
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4125 - The Military History of England and its Colonies
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 3190 - Mexico, 1810–Present
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4385 - Nazi Germany

- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- INST 4854 - Political Economy of the Middle East
- INST 4855 - International Relations and Politics of the Middle East
- INST 4857 - Human Security in the 21st Century
- INST 4859 - Middle East Politics and Society through Film
- MUET 3030 - Music Cultures of the World
- MUET 3050 - Music of Africa
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 3375 - Latin American Philosophy
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations

Other course requirements

Students pursuing the Global Perspectives concentration in International Studies should not select Latin or Sign Language to fulfill the College of Liberal Arts and Social Sciences BA degree Foreign Language requirement.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other information

ANTH 4701, PSCI 3700, PSCI 4700, PSCI 4820, HIST 4260, HIST 4262, HIST 4263, WGST 4260 can apply with advisor approval.

Students are strongly encouraged to take advantage of Study Abroad opportunities. Students are also encouraged to do an internship related to their area of concentration; only 3 hours will apply towards the major.

International Studies with a concentration in Human Security, BA

In our increasingly interconnected world, businesses, non-governmental organizations, aid agencies, and government agencies have increased their search for employees who understand world issues. A Bachelor of Arts with a major in international studies and a concentration in human security makes you a valuable asset to any organization with whom you choose to work. This major is designed to prepare students for jobs in the public and private sectors, where globalization is increasing dramatically, or to enter a graduate degree program.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Majors need 42 hours from the list of approved courses below, including:

- INST 2100 - Introduction to International Studies
- INST 4853 - Global Development: Issues and Challenges

  or
- INST 4800 - International Studies Internship

Human Security concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

Professional Skills, 6 hours

- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- EADP 3010 - Principles of Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 4020 - Managing Disasters at the National Level
- EADP 4030 - Continuity Planning for Crises
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3430 - Crisis Communication
- MGMT 4235 - Social Entrepreneurship
- PADM 4000 - Mediation
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers
- PADM 4210 - Introduction to Philanthropy and Fundraising
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4240 - Volunteer Management Concepts and Applications
- PADM 4260 - Volunteer Program Planning and Evaluation

Sustainable Development and Climate Change, 9 hours

- ANTH 4400 - Environmental Anthropology
- BIOL 1132 - Environmental Science
- EADP 2030 - Climate Change Resilience

- EADP 4015 - Flood Plain Management
- GEOG 3200 - Sustainability
- GEOG 4245 - Geography of International Development
- GEOG 4420 - Capitalism, Nature and Climate Change
- HMGT 2810 - Introduction to International Sustainable Tourism
- PHIL 2500 - Environment and Society
- PHIL 3475 - Philosophy of Climate Change
- PHIL 3900 - Philosophy of Food
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 4450 - Philosophy of Ecology
- PHIL 4650 - Philosophy of Water
- PHIL 4700 - Environmental Philosophy
- PHIL 4740 - Environmental Justice
- SOCI 4170 - Environmental Sociology
- WGST 4250 - Gender and Sustainable Development

Social Issues and Global Health, 12 hours

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4220 - Anthropology in Public Health
- ANTH 4300 - Migrants and Refugees
- ANTH 4720 - Human Rights Anthropology
- EADP 4010 - Public Health and Disasters
- EADP 4040 - International Disasters
- EADP 4050 - Social Vulnerability in Disasters
- GEOG 3120 - Medical Geography
- GEOG 3600 - Political Geography
- GEOG 4210 - Urban Geography
- HIST 4405 - History of the Body
- INST 4861 - Putin's Russia
- PSCI 3500 - Human Security
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4640 - Revolution and Political Violence
- PSCI 4661 - Politics of Autocracy
- PSCI 4662 - Civil-Military Relations
- PSCI 4670 - Third World Politics
- PSCI 4671 - Globalization and Development
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4820 - Contemporary International Problems
- PSCI 4821 - International Conflict
- PSCI 4826 - Women, War and Peace
- PSCI 4829 - International Crisis Forecasting
- PSCI 4845 - Foreign Policy Around the World
- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 3025 - Environmental Health
- PUBH 3030 - Global Public Health
- PUBH 4015 - Ethics in Public Health
- PUBH 4050 - Public Health and Health Policy
- SOCI 3330 - Social Inequality and Stratification
- SOCI 3550 - Social Movements
- SOCI 4160 - Developing Societies
- SOCI 4210 - Intersectionality
- SOCI 4250 - Gender and Society
- SOCI 3540 - Racial and Ethnic Minorities
- SOCI 4750 - World Population Trends and Problems

Region courses, 9 hours

- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- ANTH 4320 - Contemporary Middle East: Society, Culture and Politics
- ECON 4855 - U.S.-Mexico Economic Relations
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society
- HIST 3190 - Mexico, 1810–Present
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 3550 - Imperial China
- HIST 3560 - Modern China
- HIST 3570 - Japanese History
- HIST 3600 - Evolution of Warfare to Napoleon
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 4050 - Russia from the 9th to the 19th Century
- HIST 4055 - The Russian Empire from 1700 to 1917
- HIST 4060 - Russia in the 20th and 21st Centuries
- HIST 4061 - Russian Cultural History of the 19th and 20th Centuries
- HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4081 - The Rise of English Sea Power: 1399-1714
- HIST 4100 - Modern Britain
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4125 - The Military History of England and its Colonies
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821
- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4241 - World Histories of Pop Music
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East

- HIST 4247 - A History of Jews in the Middle East
- HIST 4248 - Palestinian History
- HIST 4249 - Food, Sex, and Drugs in Middle Eastern History
- HIST 4250 - Modern Middle Eastern Diasporas
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4301 - Napoleonic Europe, 1799–1815
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4350 - Europe, 1914–1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4395 - The State of Israel
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4605 - History of South Asia, 1757–1947
- HIST 4610 - Contemporary South Asia
- INST 4854 - Political Economy of the Middle East
- INST 4855 - International Relations and Politics of the Middle East
- INST 4857 - Human Security in the 21st Century
- INST 4859 - Middle East Politics and Society through Film
- INST 4860 - Asian Youth: Cultures, Activism, Media
- MUET 3030 - Music Cultures of the World
- MUET 3050 - Music of Africa
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- PHIL 3375 - Latin American Philosophy
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- WLLC 3100 - Arab Cultures in Film and Music
- WLLC 3200 - Chinese Culture and Society
- WLLC 3310 - The Best of French Pop Culture
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture
- WLLC 3420 - German Graphic Novels
- WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction
- WLLC 3600 - Japanese Popular Culture

Other course requirements

- 6 upper-division hours in a foreign language of the student's choice. International students who attended high school in a non-native English-speaking country and have been exempted from the College of Liberal Arts and Social Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- Latin and Sign Language courses will not count toward this requirement.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Minor

Optional.

Other information

- ANTH 4701, PSCI 3700, PSCI 4700, PSCI 4820, HIST 4260, HIST 4262, HIST 4263, and WGST 4260 can apply with advisor approval.
- Students are strongly encouraged to take advantage of Study Abroad opportunities. Students are also encouraged to do an internship related to their area of concentration; only 3 hours will apply towards the major.

Political Science, BA

A Bachelor of Arts with a major in political science combines cutting-edge research with award-winning teaching to ensure your academic and career goals are met. Our courses provide a deep understanding of relevant issues in local, national and international governments.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in political science.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

36 hours in political science

Political science majors must complete 36 hours in political science:

- PSCI 2306 - US and Texas Constitutions and Institutions

  or

- PSCI 2316 - Honors U.S. and Texas Constitutions and Institutions

- PSCI 2305 - US Political Behavior and Policy

  or
- PSCI 2315 - Honors US Political Behavior and Policy

- PSCI 3300 - Political Science Research Methods
- 27 advanced hours, including at least one advanced course each in three of the listed areas of study; and completion of either PSCI 4951, PSCI 4952, PSCI 4953 or PSCI 4954.

Advanced courses

Advanced courses are offered in six areas of study:

Field A, American government and politics

- PSCI 3010 - American State and Local Government
- PSCI 3100 - Topics in American Government *
- PSCI 3101 - Latino Politics
- PSCI 3103 - U.S. Immigration Politics
- PSCI 3104 - Race and Ethnic Politics
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3110 - The Legislative Process
- PSCI 3120 - Women and Politics
- PSCI 3130 - Interest Groups
- PSCI 3160 - Mass Media in American Politics
- PSCI 4020 - Urban Politics
- PSCI 4100 - Political Parties
- PSCI 4120 - Public Opinion and Participation
- PSCI 4140 - The Presidency

Field B, Public law

- PSCI 3200 - The American Legal System
- PSCI 3210 - The U.S. Supreme Court
- PSCI 4200 - Constitutional Law: Powers of Government
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4230 - The Constitution and the Rights of Criminal Defendants
- PSCI 4810 - International Law

Field C, Political theory and methodology

- PSCI 3310 - Political Theory: Quest for Justice
- PSCI 3320 - Political Theory: The State and its Critics
- PSCI 4300 - Topics in Political Research Methodology
- PSCI 4320 - American Political Theory
- PSCI 4330 - Topics in Political Theory *
- PSCI 4360 - International Ethics

Field D, Public policy

- PSCI 3102 - U.S. Immigration Policy
- PSCI 4490 - Topics in Public Policy

Field E, Comparative government and politics

- PSCI 3600 - Governments and Politics around the World
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3641 - Politics of Japan
- PSCI 3700 - Area Politics *
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- PSCI 4640 - Revolution and Political Violence
- PSCI 4661 - Politics of Autocracy
- PSCI 4662 - Civil-Military Relations
- PSCI 4663 - Comparative Judicial Politics
- PSCI 4670 - Third World Politics
- PSCI 4671 - Globalization and Development
- PSCI 4700 - Topics in Comparative Politics
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4826 - Women, War and Peace
- PSCI 4845 - Foreign Policy Around the World

Field F, International relations

- PSCI 3500 - Human Security
- PSCI 3810 - International Relations
- PSCI 4520 - International Human Rights
- PSCI 4800 - The Politics of International Organization
- PSCI 4810 - International Law
- PSCI 4820 - Contemporary International Problems *
- PSCI 4821 - International Conflict
- PSCI 4826 - Women, War and Peace
- PSCI 4827 - Negotiation and Diplomacy
- PSCI 4828 - Geography, History, and International Relations
- PSCI 4830 - American Foreign Policy
- PSCI 4845 - Foreign Policy Around the World

Other advanced options

- PSCI 3165 - Topics in Politics and Pop Culture
- PSCI 4950 - Writing, Advocacy, and Communication

Notes

Courses listed in more than one area of study may be counted toward the requirements of only one area.

*May be repeated for credit as topics vary.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

Academic requirements for graduation with a BA degree in political science: A student must have a minimum of 2.5 grade point average in all courses counting toward the political science major; the student must have a 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work in all courses.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Mathematics core	3 hours	Social and Behavioral Sciences core	3 hours
CLASS Foreign Language-elementary	3 hours	CLASS Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PSCI 3300 - Political Science Research Methods	3 hours	Component Area Option B core	3 hours
Life and Physical Sciences core	3 hours	Creative Arts core	3 hours
Language, Philosophy and Culture core	3 hours	CLASS Foreign Language-intermediate	3 hours
CLASS Foreign Language-intermediate	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CLASS Distribution-Cultural Diversity and Global Issues	3 hours	PSCI elective-advanced	3 hours
PSCI elective-advanced	3 hours	PSCI elective-advanced	3 hours
PSCI elective-advanced	3 hours	PSCI elective-advanced	3 hours
PSCI elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	PSCI Capstone	3 hours
PSCI elective-advanced	3 hours	Elective	3 hours
PSCI elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Political Science, BA with grad track option leading to Political Science, MA

The Department of Political Science offers a grad track option in which the student can complete a bachelor's degree in four years, and then complete a master's degree with a fifth year of study. The program is for highly motivated political science majors who have maintained at least a 3.5 GPA. Students should apply during their junior year to this program.

Undergraduate students who have been accepted to a grad track pathway option must complete all their bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they were admitted to the accelerated program or enrollment in graduate level course work may be suspended.

Admitted students will take 12 graduate hours during their senior year, which will count first toward the bachelor's degree and then be transferred to the master's degrees as permitted by university rules.

Admission requirements and program policies

Admission requirements

Students are eligible for acceptance at the end of their junior year, upon completion of 75 undergraduate hours, including:

- PSCI 2305 - US Political Behavior and Policy
- PSCI 2306 - US and Texas Constitutions and Institutions
- PSCI 3300 - Political Science Research Methods
- A writing sample
- Three letters of recommendation
- A statement of purpose
- A resume
- The submission of an application to the Toulouse Graduate School

Submission of GRE scores is not required.

For students in the UNT Honors College, admission to the graduate program is guaranteed for students who satisfy these requirements.

Program policies

Undergraduate students who have been accepted to a grad track pathway option must complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they were admitted to the accelerated program or enrollment in graduate level course work will be suspended.

Admitted students will take twelve graduate hours during their senior year, which will also count toward their BA as permitted by university rules.

Program requirements

In lieu of 4 advanced undergraduate electives in the fourth year, students will take:

- PSCI 5300 - Practical Research Methods
  or
- PSCI 5340 - Seminar in Political Science Scope and Methods

Plus three courses from the following:

- PSCI 5020 - Proseminar in American Government and Politics
- PSCI 5030 - Proseminar in American Political Institutions
- PSCI 5040 - Proseminar in American Political Behavior
- PSCI 5310 - Proseminar in Political Theory
- PSCI 5320 - Quantitative Political Research Methods
- PSCI 5370 - Writing, Advocacy and Communication
- PSCI 5610 - Proseminar in Comparative Government
- PSCI 5900 - Special Problems

All remaining courses for BA with a major in political science must be completed.

Minors

Conflict and Human Security minor

Students wishing to obtain a minor in conflict and human security must complete a minimum of 18 hours (6 advanced), including PSCI 3500 and two core courses and three electives from the lists below.

Core courses

Select two courses from the list below.

- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4720 - Human Rights Anthropology
- CJUS 4330 - Domestic and International Terrorism
- HIST 3610 - Evolution of Warfare from Napoleon
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 4642 - War and American Society, 1608-2001
- PSCI 3104 - Race and Ethnic Politics
- PSCI 4520 - International Human Rights
- PSCI 4640 - Revolution and Political Violence
- PSCI 4821 - International Conflict
- SOCI 3550 - Social Movements

Electives

Students select three courses from the list below.

- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 4300 - Migrants and Refugees
- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4720 - Human Rights Anthropology
- ANTH 4760 - Inequality, Social Justice and the City
- CJUS 3500 - Inequality, Crime and Justice
- CJUS 4330 - Domestic and International Terrorism
- COMM 3320 - Communication and Conflict Management
- EADP 4090 - Terrorism and Emergency Management
- ECON 3150 - Economics of Discrimination
- HIST 4066 - World War I
- HIST 4070 - World War II: European Theater
- HIST 4072 - World War II in Asia and the Pacific
- HIST 4073 - World War II: The Soviet-German War
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4110 - British Empire in Asia, Africa, and the Pacific
- HIST 4125 - The Military History of England and its Colonies
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4248 - Palestinian History
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4300 - The French Revolution, 1774–1799
- HIST 4302 - Wars of Napoleon, 1792–1815
- HIST 4303 - Age of Empire 1848-1914

- HIST 4335 - Age of Revolutions: Europe, 1700–1918
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- HIST 4391 - War Crimes, Genocide, and Justice
- HIST 3063 - U.S. Gender and Race Since 1945
- HIST 4640 - History of U.S Military in 19th Century
- HIST 4641 - History of U.S. Military in 20th Century
- HIST 4642 - War and American Society, 1608-2001
- HIST 4860 - The Civil War and Reconstruction
- HIST 4890 - Civil Rights and Black Power Movements in the U.S.
- INST 4851 - International Security
- INST 4856 - Human Trafficking
- PHIL 3130 - Philosophy of Race and Racism
- PHIL 4740 - Environmental Justice
- PSCI 3103 - U.S. Immigration Politics
- PSCI 3104 - Race and Ethnic Politics
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3120 - Women and Politics
- PSCI 3631 - Peace and Conflict in Africa
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4640 - Revolution and Political Violence
- PSCI 4661 - Politics of Autocracy
- PSCI 4662 - Civil-Military Relations
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4821 - International Conflict
- PSCI 4826 - Women, War and Peace
- PSCI 4827 - Negotiation and Diplomacy
- PSCI 4828 - Geography, History, and International Relations
- PSCI 4830 - American Foreign Policy
- PSCI 4845 - Foreign Policy Around the World
- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOCI 3550 - Social Movements
- SOCI 3540 - Racial and Ethnic Minorities

Or, when topic is appropriate

- HIST 4260 - Topics in History
- PSCI 4700 - Topics in Comparative Politics

Additional information

Practicums, internships and special problems courses may also apply if approved by the director of the conflict and human security program. Interested students should contact Dr. James Meernik, Department of Political Science, 139 Wooten Hall, or by e-mail at meernik@unt.edu.

International Studies minor

A minor in international studies requires 18 hours. Students choose one of four (4) areas of concentration for the minor:

- International Studies with a concentration in Business and Economics
- International Studies with a concentration in Global Perspectives
- International Studies with a concentration in Human Security
- International Studies with a concentration in Global Conflict

18 hours including 6 advanced hours from one of the following:

INST 2100 will be required for all four of the concentrations along with the INST Capstone class that is appropriate for that particular concentration.

Business and Economics

- INST 2100 - Introduction to International Studies
- Any INST 48xx course
- Four additional advanced courses from the approved course listing that are appropriate for their chosen concentration, excluding courses labeled as “Regional courses.”

Global Perspectives

- INST 2100 - Introduction to International Studies
- Any INST 48xx course
- Four additional advanced courses from the approved course listing that are appropriate for their chosen concentration.

Human Security

- INST 2100 - Introduction to International Studies
- Any INST 48xx course
- Four additional advanced courses from the approved course listing that are appropriate for their chosen concentration, excluding courses labeled as “Regional courses.”

Global Conflict

- INST 2100 - Introduction to International Studies
- Any INST 48xx course
- Four additional advanced courses from the approved course listing that are appropriate for their chosen concentration, excluding courses labeled as “Regional courses.”

Legal Studies minor

The legal studies minor requires 18 credit hours, including 6 advanced hours. The minor allows students to pursue a credential that is widely recognized by law schools and to further develop key skills that lawyers need.

Requirements

To earn a legal studies minor, students must complete 18 hours, including 6 advanced, comprised of one course in each of the following six categories.

Foundations, 3 hours

Choose from:

- CJUS 2600 - Judicial and Legal Systems
- PSCI 3200 - The American Legal System

Analytical reasoning, 3 hours

Choose from:

- COMM 2140 - Advocating in Public
- COMM 3840 - Argumentation and Debate
- ECON 4550 - Law and Economics
- PHIL 2050 - Logic and Critical Thinking
- PSCI 4250 - Legal Reasoning and Analysis

Critical thinking, 3 hours

Choose from:

- PHIL 3120 - Social and Political Philosophy
- PHIL 3310 - Ancient Greek Philosophy
- PHIL 3320 - Medieval Philosophy
- PHIL 3330 - Modern European Philosophy
- PHIL 3340 - Nineteenth-Century Philosophy
- PHIL 3400 - Ethical Theory
- PSCI 3310 - Political Theory: Quest for Justice
- PSCI 3320 - Political Theory: The State and its Critics
- PSCI 4330 - Topics in Political Theory

Oral and written advocacy, 3 hours

Choose from:

- COMM 2040 - Public Speaking
- ENGL 3110 - Writing and Rhetoric in the Humanities
- PADM 4000 - Mediation
- PADM 4050 - Negotiation
- PSCI 4950 - Writing, Advocacy, and Communication

Applied legal studies, 3 hours

Choose from:

- BLAW 4450 - Corporation Law
- CJUS 2500 - Criminal Law
- PSCI 4200 - Constitutional Law: Powers of Government
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4230 - The Constitution and the Rights of Criminal Defendants

Practical legal applications, 3 hours

Choose from:

- PSCI 3910 - Practicum (offered fall semester only)
- PSCI 3933 - Legal Internship for Non-Majors

Additional information

For more information, please visit class.unt.edu/advising/pre-law. If you wish to declare your intent to seek a legal studies certificate, contact the College of Liberal Arts and Social Sciences Student Advising office (sscluster@unt.edu).

Political Science minor

A minor in political sciences requires 18 hours:

Required courses

- PSCI 2305 - US Political Behavior and Policy
- PSCI 2306 - US and Texas Constitutions and Institutions

Plus 12 hours

Plus 12 semester hours of PSCI courses, including 6 advanced hours.

Latina/o and Mexican-American Studies certificate

A certificate in Latina/o and Mexican-American studies requires a total of 15 hours.

Required courses, 6 hours

Choose six hours from two different departments from the following:

- ANTH 3140 - Latinos in the U.S.
- ANTH 4300 - Migrants and Refugees
- ARTH 4818 - Topics in Latin American Art
- COMM 4640 - Latin@ Rhetorics
- ECON 4855 - U.S.-Mexico Economic Relations
- ENGL 2351 - Mexican American Literature
- ENGL 4250 - Latinx Literature
- HIST 3160 - Latinx Civil Rights Movements
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- MRTS 3420 - Histories of Latin/x American Media
- MRTS 4675 - Media and Power in Latin America
- PHIL 3375 - Latin American Philosophy
- PSCI 3101 - Latino Politics
- PSCI 3102 - U.S. Immigration Policy
- PSCI 3103 - U.S. Immigration Politics
- THEA 4370 - Contemporary Latinx Theatre

Some advanced courses may have prerequisites. Check with your advisor before enrolling.

Remaining 9 hours

Select 9 hours from at least two departments, including 3 advanced hours, from the following courses (or other courses as approved by the advisor):

- ANTH 3140 - Latinos in the U.S.
- ANTH 3200 - Latin America
- ANTH 3210 - Meso America
- ANTH 3220 - Mayan Culture
- ANTH 4300 - Migrants and Refugees
- ARTH 4818 - Topics in Latin American Art
- COMM 4640 - Latin@ Rhetorics
- ECON 3150 - Economics of Discrimination
- ECON 4855 - U.S.-Mexico Economic Relations
- EDBE 2060 - Children's and Young Adult Literature for the Elementary Multilingual Classroom
- ENGL 2351 - Mexican American Literature
- ENGL 3920 - Ethnic American Literatures
- ENGL 4250 - Latinx Literature
- ENGL 4255 - Mexican American Non-Fiction and Criticism
- ENGL 4825 - The Literature of Texas and the Southwest
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 3160 - Latinx Civil Rights Movements
- HIST 3173 - Latin American Food History
- HIST 3190 - Mexico, 1810–Present
- HIST 4170 - History of Tejanos/as
- HIST 4171 - Latin America: The Colonial Experience, 1492–1821

- HIST 4172 - Modern Latin America: 1810-Present
- HIST 4180 - Colonial Mexico and the Spanish Southwest
- HIST 4263 - Topics in African-, Asian- or Latin American History
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- MUET 3080 - Studies in Latin-American Music
- MRTS 3420 - Histories of Latin/x American Media
- MRTS 4675 - Media and Power in Latin America
- PHIL 3375 - Latin American Philosophy
- PSCI 3101 - Latino Politics
- PSCI 3102 - U.S. Immigration Policy
- PSCI 3103 - U.S. Immigration Politics
- PSCI 3104 - Race and Ethnic Politics
- PSCI 3105 - Political Economy of Race, Gender and Immigration
- PSCI 3611 - Politics of Central America and the Caribbean
- PSCI 3701 - Politics of Mexico
- PSCI 3702 - Latin American Politics
- PSCI 3703 - Security in Latin America
- PSCI 3704 - U.S.-Latin American Relations
- PSYC 4040 - Psychology of Race in the U.S.
- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOCI 3540 - Racial and Ethnic Minorities
- SOCI 4580 - Immigration and Race in Contemporary U.S.
- SPAN 3110 - Analysis of Hispanic Literature
- SPAN 3130 - Topics in Latin American Culture
- SPAN 3140 - Mexican Civilization
- SPAN 3160 - Latin American Culture and Civilization
- SPAN 3180 - Latin American Culture Through Film
- SPAN 4010 - Aspects of Contemporary Mexican Culture
- SPAN 4360 - Survey of Spanish-American Literature
- THEA 4370 - Contemporary Latinx Theatre
- WGST 4260 - Topics in Women's and Gender Studies (When course is taught as "The Shift from Chicana Feminism to Xicanisma")

The Faculty Advisor can approve of additional courses not listed here.

Some advanced courses may have requirements. Check with your advisors before enrolling. For more information, please contact Dr. Megan Morrissey, Director of the School of Applied Liberal Arts, at Megan.Morrissey@unt.edu, or the UNT College of Liberal Arts and Social Sciences Student Advising office in GAB 220 or at (940) 565-2051.

Legal Studies certificate

A legal studies certificate may be earned by students who have completed a concentration of academic work designed to prepare them for admission to and success in law school, regardless of major or minor at UNT. The Department of Political Science will award the certificate to students who have completed 15 hours of approved course work and maintained a 3.25 in the courses taken for the certificate as well as a 3.0 cumulative UNT GPA. Classes that count toward the student's major, minor or core requirements may also count toward this certificate. In keeping with university policy, all course work for the certificate must be completed at UNT.

Requirements

All recipients of the certificate MUST complete 15 hours, one course from each of the following five areas:

Foundations, 3 hours

Choose from:

- CJUS 2600 - Judicial and Legal Systems
- PSCI 3200 - The American Legal System

Analytical reasoning, 3 hours

Choose from:

- COMM 2140 - Advocating in Public
- COMM 3840 - Argumentation and Debate
- ECON 4550 - Law and Economics
- PHIL 2050 - Logic and Critical Thinking
- PSCI 4250 - Legal Reasoning and Analysis

Oral and written advocacy, 3 hours

Choose from:

- COMM 2040 - Public Speaking
- ENGL 3110 - Writing and Rhetoric in the Humanities
- PADM 4000 - Mediation
- PADM 4050 - Negotiation
- PSCI 4950 - Writing, Advocacy, and Communication

Applied legal studies, 3 hours

Choose from:

- BLAW 4450 - Corporation Law
- CJUS 2500 - Criminal Law
- PSCI 4200 - Constitutional Law: Powers of Government
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4230 - The Constitution and the Rights of Criminal Defendants

Critical thinking, 3 hours

Choose from:

- PHIL 3120 - Social and Political Philosophy
- PHIL 3310 - Ancient Greek Philosophy
- PHIL 3320 - Medieval Philosophy
- PHIL 3330 - Modern European Philosophy
- PHIL 3340 - Nineteenth-Century Philosophy
- PHIL 3400 - Ethical Theory
- PSCI 3310 - Political Theory: Quest for Justice
- PSCI 3320 - Political Theory: The State and its Critics
- PSCI 4330 - Topics in Political Theory

Additional information

For more information, please visit unt.edu/academics/programs/legal-studies-certificate.html. If you wish to declare your intent to seek a legal studies certificate, contact the College of Liberal Arts and Social Sciences Student Advising office (sscluster@unt.edu).

Peace Studies certificate

15 hours, at least 9 of which must be upper division, including PSCI 3500 - Human Security and at least one course from each of three areas in the Conflict and Human Security minor: determinants of violence, conflict resolution and issues of justice. Three hours of internship credit can be accepted.

Department of Sociology

Departmental Office
Sycamore Hall, Suite 288

Mailing address:
1155 Union Circle #311157
Denton, TX 76203-5017
940-565-2296
Web site: sociology.unt.edu

Matthew Painter, Chair

Faculty

The Department of Sociology offers a variety of degrees, including a Bachelor of Arts (BA) with a major in sociology; a Bachelor of Science (BS) with a major in sociology; a BS + MS Grad Track, a Master of Science (MS), with a major in sociology; and a Doctor of Philosophy (PhD) with a major in sociology.

Faculty teach and conduct research in a variety of areas, including sustainable societies, sociology of disaster, globalization, medical sociology, sociology of the family, sociology of culture, environmental sociology, economic sociology, sociology of religion, sociology of education and other topics.

The undergraduate degree with a major in sociology focuses on developing a core set of marketable skills required by all sociologists and then allows students to investigate specific social institutions or structures of interest. Through a combination of required and elective courses, students develop well-rounded skills, grounded in both theory and research methods.

The program is designed to prepare students for graduate study in sociology or for professional careers in a variety of fields, including research, education, government, social services, probation, law enforcement and aging services. A minor in sociology provides useful background for those pursuing a degree in areas such as business, psychology, criminal justice, communications, education and music.

Degree Plan

Degree plans are worked out in consultation with the undergraduate faculty advisor, Dr. Helen Potts. Call 940-565-2296 or e-mail Helen.Potts@unt.edu.

Majors

Sociology with a concentration in Sports Culture, BS

Explores the role of sports as a powerful social, cultural, and political force throughout the world. Examines how sports influence individuals, groups, communities, nations, and the world as a whole, by critically investigating the intersection of sports and race, class, gender, politics, age, economics, education, work, and media.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in sociology.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements (excluding foreign language).

Major requirements

36 hours in sociology, of which 24 must be advanced, including the sociology core curriculum (15 specified hours in sociology), of which 12 must be taken at UNT and at the advanced level (3000 or 4000). Note: Students must receive a C or better in sociology core curriculum courses.

Sociology core curriculum, 15 hours

- SOCI 1510 - Introduction to Sociology
- SOCI 3200 - Sociological Theory
- SOCI 3220 - Quantitative Data Collection
- SOCI 3240 - Qualitative Research Methods
- SOCI 3280 - Quantitative Data Analysis

Sports Culture courses, 18 hours

3 hours from:

- SOCI 2050 - Sociology of Sport

15 hours from the approved list of courses below:

- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOCI 3110 - Sociology of Mental Health, Mental Illness and Mental Health Care
- SOCI 3120 - Sociology of Health and Illness
- SOCI 3330 - Social Inequality and Stratification
- SOCI 3800 - Sociology of Work
- SOCI 4210 - Intersectionality
- SOCI 4240 - Sociology of Sexuality
- SOCI 4250 - Gender and Society
- SOCI 4340 - Social Psychology and Behavior in the Social Environment
- SOCI 4350 - Community Organization
- SOCI 4550 - Sociology of Aging
- SOCI 4600 - Internet and Society
- SOCI 4650 - Education and Society
- SOCI 4900 - Special Problems
- SOCI 4911 - Sociology Mentored Research Experience
- SOCI 4950 - Sociology Internship

Sociology elective, 3 hours

Complete 3 additional hours of Sociology courses.

Minor

Recommended but not required.

Other requirements

- Minimum sociology grade point average of 2.25 is required for graduation.
- A total of 42 hours upper-division work (advanced courses).
- 30-hour residence requirement.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	Component Area Option A core - SOCI 2070 recommended	3 hours
SOCI 1510 - Introduction to Sociology	3 hours	Communication core	3 hours
Communication core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	SOCI 2050 - Sociology of Sport	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Creative Arts core	3 hours	Component Area Option B core	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Sociology Elective	3 hours	Sociology Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
SOCI 3200 - Sociological Theory	3 hours	SOCI 3240 - Qualitative Research Methods	3 hours
SOCI 3220 - Quantitative Data Collection	3 hours	Sociology Elective-advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
SOCI 3280 - Quantitative Data Analysis	3 hours	Sociology Elective-advanced	3 hours
Sociology Elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Sociology, BS

Recommended for students intending to pursue graduate education in sociology or related fields.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in sociology.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements (excluding foreign language).

Major requirements

36 hours in sociology, of which 24 must be advanced, including the sociology core curriculum (15 specified hours in sociology), of which 12 must be taken at UNT and at the advanced level (3000 or 4000). Note: Students must receive a C or better in sociology core curriculum courses.

Sociology core curriculum, 15 hours

- SOCI 1510 - Introduction to Sociology
- SOCI 3200 - Sociological Theory
- SOCI 3220 - Quantitative Data Collection
- SOCI 3240 - Qualitative Research Methods
- SOCI 3280 - Quantitative Data Analysis

Sociology elective requirements, 21 hours

- 12 hours of SOCI courses at the advanced level (3000- or 4000-level)
- 9 hours of SOCI courses from any level

Minor

Recommended but not required.

Other requirements

- Minimum sociology grade point average of 2.25 is required for graduation.
- A total of 42 hours upper-division work (advanced courses).
- 30-hour residence requirement.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	Component Area Option A core - SOCI 2070 recommended	3 hours
SOCI 1510 - Introduction to Sociology	3 hours	Communication core	3 hours
Communication core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Sociology Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Creative Arts core	3 hours	Component Area Option B core	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Sociology Elective	3 hours	Sociology Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
SOCI 3200 - Sociological Theory	3 hours	SOCI 3240 - Qualitative Research Methods	3 hours
SOCI 3220 - Quantitative Data Collection	3 hours	Sociology Elective-advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
SOCI 3280 - Quantitative Data Analysis	3 hours	Sociology Elective-advanced	3 hours
Sociology Elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Sociology, BS with grad track option leading to Sociology, MS

The sociology BS with grad track option leading to the MS in sociology with a concentration in research and theory program will prepare students for their future career paths and allow them more flexibility in employment. Following this academic path is an indicator of potential work ethic for employers, illustrates maturity, and the ability to handle a multitude of challenging situations, along with problem-solving capabilities. Students pursuing the sociology BS with grad track option leading to the MS in sociology with a concentration in research and theory program will also be well prepared for any PhD program, as they will graduate with a concentrated training in a variety of sociological theoretical thought and the ability to apply research methodology and statistical procedures in applied settings.

Earning the BS and the MS in sociology with a concentration in research and theory will also prepare emerging professionals enrolled to fulfill the following career aspirations:

- Attain and then sustain positions as project managers in the for- and not-for-profit sectors in organizations that require people who can operate as well as teach the skill sets and habits of mind necessary to manage expectations, forge and maintain relationships and facilitate common understanding;
- Use the knowledge they gain from their enrollment in this program to effectively begin PhD programs in areas that include but are not limited to sociology, anthropology, psychology and other social science disciplines;
- Assume management-level positions in a wide array of organizations (including non-profit organizations) that require those who work for them to be able to formulate, design, and effectively analyze evidence-based results gleaned from the social research processes, and then use this evidence to support crucial decisions and actions;
- Assume leadership roles in both private and public sector organizations that involve establishing and sustaining community outreach; and
- Use the knowledge and skill sets such as research that they will have learned during their enrollment in this program to attain and fulfill positions in organizations that require the services of leaders who can actually innovate and, when necessary, apply theory as a means to resolve complex, systemic problems.

Admission Criteria

To be eligible for acceptance, students must have completed a minimum of 75 undergraduate credit hours, including four of the six core sociology courses for a BS in sociology with a grade of C or better:

- SOCI 1510 - Introduction to Sociology
- SOCI 3200 - Sociological Theory
- SOCI 3220 - Quantitative Data Collection
- SOCI 3240 - Qualitative Research Methods
- SOCI 3280 - Quantitative Data Analysis
- SOCI 4850 - Applied Research and Careers in Sociology

Requirements

To earn this grad track degree, an undergraduate student must have completed 90 credit hours toward the fulfillment of a specific UNT bachelor's degree program with a cumulative GPA of 3.5 or better and have satisfied the rest of its stated admissions requirements. Students who are accepted into this program must elect to enroll in up to two, first-year-of-graduate-study, 5000-level courses in the sociology graduate MS curriculum as substitutions for up to two, advanced elective courses in the undergraduate degree.

Each candidate must complete a minimum of 30 credit hours of study at 5000-level earned from passing the (up to) six hours of 5000-level courses with a letter grade of C or better to earn this degree. Candidates must earn up to 6 credit hours toward their degree from the required courses listed below:

- SOCI 5050 - Sociological Theory (3 credit hours)
- SOCI 5200 - Research Methods and Design (3 credit hours)
- SOCI 5210 - Introduction to Social Statistics (3 credit hours)
- SOCI 5XXX as approved by grad track advisor.

Once (up to) two, first-year-of-graduate-study, 5000-level courses in the sociology MS graduate program curriculum have been completed successfully (i.e. passed with a letter grade of C or better), the candidate's bachelor's degree can be conferred, as long as they have met the requirements for whatever undergraduate plan they have filed.

All remaining courses for Sociology, BS must be completed.

Minors

Sociology minor

A minor in sociology requires a minimum of 18 hours, including 6 advanced and SOCI 1510.

Undergraduate Academic Certificates

Applied Sociology and Career Readiness certificate

Junior and senior sociology majors are encouraged to explore opportunities for deeper engagement, such as undergraduate research opportunities, internships, the sociology capstone experience (Applied Research and Careers in Sociology), and directed "Special Problem" courses under the supervision of a faculty member. Students interested in developing their career readiness to apply data and methodological skills should consider enhancing their resumes by completing the Applied Sociology and Career Readiness Certificate.

Requirements

12 credit hours of statistics/methods and career-readiness courses.

Required courses, 9 credit hours

- SOCI 3220 - Quantitative Data Collection
- SOCI 3240 - Qualitative Research Methods
- SOCI 3280 - Quantitative Data Analysis

Plus ONE of the following courses, 3 credit hours

- SOCI 4850 - Applied Research and Careers in Sociology
- SOCI 4900 - Special Problems
- SOCI 4911 - Sociology Mentored Research Experience
- SOCI 4950 - Sociology Internship
- SOCI 4951 - Honors College Capstone Thesis
- McNair Scholar Program (with a Sociology faculty mentor)

Cybercrime and Social Behavior Certificate

A 12-hour interdisciplinary certificate on human behavior and social issues in cybercrime and cybersecurity. Topics include cryptocurrency, internet scams, NFTs, Generative AI, deep fakes, fake news, hacking, hacktivism, cyberterrorism, etc.

Requirements

Choose two courses from the following, 6 hours

- SOCI 3133 - Cybercrime and Social Behavior
- SOCI 4600 - Internet and Society
- SOCI 4630 - Deviance and Control
- SOCI 4950 - Sociology Internship

Choose two courses from the following, 6 hours

- ECON 3300 - Webonomics
- PHIL 2600 - Ethics in Science
- PHIL 3450 - Philosophy of Technology
- PHIL 4200 - Science, Technology and Society
- SOCI 4600 - Internet and Society
- SOCI 4630 - Deviance and Control
- SOCI 4950 - Sociology Internship

Sports Culture and Society Certificate

The Sports Culture and Society Certificate is a 12-hour interdisciplinary certificate focused on social issues in sport.

Requirements

Students must complete the following course (3 hours):

- SOCI 2050 - Sociology of Sport

Choose two courses from the following (6 hours):

- SOCI 3120 - Sociology of Health and Illness
- SOCI 3330 - Social Inequality and Stratification
- SOCI 4900 - Special Problems
- SOCI 4950 - Sociology Internship

Choose one course from the following (3 hours):

- COMM 4120 - Communication and Sport
- EDEM 3210 - Intellectual Property and Sports Entertainment
- HIST 4885 - History of Sports and American Society
- LTEC 4640 - Team Coaching
- RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations
- SENM 3500 - Sport in the Global Marketplace
- SENM 3900 - Leadership for Sport Business Professionals in the 21st Century
- SENM 4325 - Fan Engagement Strategies in the Sport Entertainment Industry
- SOCI 3120 - Sociology of Health and Illness
- SOCI 3330 - Social Inequality and Stratification
- SOCI 4900 - Special Problems
- SOCI 4950 - Sociology Internship

Department of Technical Communication

Main Departmental Office
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Undergraduate Advising Office
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Email: tcoffice@unt.edu
Web site: http://techcomm.unt.edu

Ryan K. Boettger, Chair

Faculty

The field of technical communication focuses on making technical topics understandable and using technology to make information usable. The Department of Technical Communication emphasizes evidence-based approaches to preparing students with the technical communication skills required in modern workplaces: writing, designing, and coding. We offer graduate and undergraduate degrees and certificates. Courses are taught by an internationally recognized faculty whose research is at the forefront of the field. Students have numerous leadership opportunities through teaching assistant positions for both undergraduate and graduate students, lab tutor positions in our TECM Lab, participation in our mentorship program partnership with the Society for Technical Communication (STC), and involvement in our student organization. We facilitate connections among faculty, students, and practitioners through client-sponsored course projects, internships, regular networking events, and our industry-led Advisory Board.

A degree in technical and professional communication prepares students for entry-level positions as technical writers/editors, content developers, or usability professionals, most commonly working on teams to create user guides, web content, and proposals in companies within the information technology, consulting, and healthcare industries. Texas employs more technical communicators than any other state except California, and the DFW metroplex employs the fourth most technical communicators among metropolitan areas in the United States. The number of employed technical communicators should increase 7% from 2022 to 2032, which is greater than the 3% increase expected for all occupations and the 3% for all media and communication workers (Bureau of Labor Statistics, 2022-2023 edition). Our MA graduates enjoy a 100% placement rate.

Majors

Content Strategy, BA

The Bachelor of Arts program prepares students for roles as content strategists, digital content managers, UX writers, and audience engagement specialists. The program emphasizes a deep understanding of audience analysis, digital content creation, platform optimization, and data-driven content decisions essential for creating targeted and meaningful digital narratives. Graduates typically collaborate on multidisciplinary teams to develop compelling web content, targeted content campaigns, and digital strategies in digital marketing agencies, tech startups, e-commerce platforms, and media publishing houses.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in content strategy.

General Requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements (excluding foreign language).

Major requirements

Foundation courses, 18 hours

The foundation courses establish the groundwork for students to excel as adept content strategists. Students acquire hands-on skills in technical writing, editing, content strategy, AI tools and an understanding of content strategy as a career.

- TECM 2700 - Technical Writing
- TECM 3010 - The Profession of Technical Communication
- TECM 3550 - Content Strategy in Technical Communication
- TECM 4010 - AI and Automation in Technical Communication
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing

Content strategy core courses, 18 hours

The core courses enhance students' grasp of marketing practices, project management, empirical research methods, and advanced rhetorical persuasion.

- TECM 3100 - Visual Technical Communication
- TECM 3500 - Digital Media for Professional Communication
- TECM 4100 - Proposal Writing
- TECM 4500 - Content Analysis in Technical Communication
- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors
- INFO 4306 - Project Management for Information Systems

  or
- LTEC 4060 - Project Management and Applied Technology Performance Improvement

Additional courses, 6 hours

Students complete six additional hours of advanced-level courses in TECM or six hours in the same foreign language, or an approved area related to content strategy. If taking courses outside the department, consult the TECM undergraduate advisor.

Other course requirements

A minimum grade of C is required in all TECM courses counting toward the Bachelor of Arts degree with a major in content strategy.

A minimum cumulative GPA of 2.5 for all TECM courses is required for graduation.

For more information, see department advisor.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirements (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences (CLASS).

Other requirements

A minimum grade of C is required in all TECM courses counting toward the Bachelor of Arts degree with a major in content strategy.

A minimum cumulative GPA of 2.5 for all TECM courses is required for graduation.

For more information, see the undergraduate advisor.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
Mathematics core	3 hours	Creative Arts core	3 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
TECM 3010 - The Profession of Technical Communication	3 hours	MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors	3 hours
Component Area Option A core	3 hours	TECM 3550 - Content Strategy in Technical Communication	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
TECM 3100 - Visual Technical Communication	3 hours	TECM 4100 - Proposal Writing	3 hours
TECM 4180 - Advanced Technical Communication	3 hours	TECM 4190 - Technical Editing	3 hours
Language, Philosophy and Culture core	3 hours	Component Area Option B core	3 hours
TECM elective-advanced	3 hours	Project Management selection*	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
TECM 4500 - Content Analysis in Technical Communication	3 hours	TECM 4010 - AI and Automation in Technical Communication	3 hours
TECM elective-advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

*See “Content strategy core courses” area.

Technical Communication, BS

The Bachelor of Science program prepares students for entry-level positions as technical writers/editors, content developers, or usability professionals, most commonly working on teams to create user guides, web content, and proposals in companies within the information technology, consulting, and healthcare industries.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in technical communication (TECM).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements

Foundation courses, 18 hours

The foundation courses establish the groundwork for students to become proficient technical communicators. Students gain practical skills in technical writing, content strategy, AI tools, advanced technical communication, technical editing and an understanding of tech comm as a career.

- TECM 2700 - Technical Writing
- TECM 3010 - The Profession of Technical Communication
- TECM 3550 - Content Strategy in Technical Communication
- TECM 4010 - AI and Automation in Technical Communication
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing

Technical communication core courses, 18 hours

The core courses build advanced skills in information design and specialized writing attuned to audience, purpose and rhetorical situation. Three rigorous research methods courses equip students with empirical research expertise essential for user-centered design, assessment, and data analysis.

- TECM 3200 - Information Design for Electronic Media
- TECM 4200 - Research Methods for the Practitioner
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4300 - Usability and User Experience in Technical Communication
- TECM 4500 - Content Analysis in Technical Communication
- TECM 4100 - Proposal Writing

  or
- TECM 4700 - Writing in the Sciences

Additional courses, 3 hours

Students complete three additional hours of advanced-level courses in TECM or an approved area. If taking additional courses outside the department, consult the TECM undergraduate advisor.

Practicum, 3 hours

Students can either identify their own internship opportunity (TECM 4920) or participate in a community outreach project through the Technical Communication and Community Outreach (TACO) Research Lab (TECM 4950). Both options require the submission and successful evaluation of a professional portfolio of work.

Those who pursue an internship must collaborate with the TECM Director of Corporate Relations to ensure the scope of their work is relevant to the field and appropriately scaled.

- TECM 4920 - Cooperative Education in Technical Communication

  or
- TECM 4950 - Senior Capstone Course

Other requirements

A minimum grade of C is required in all TECM courses counting toward the Bachelor of Science degree with a major in technical communication.

A minimum cumulative GPA of 2.5 for all TECM courses is required for graduation.

For more information, see the undergraduate advisor.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences (CLASS).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
Life and Physical Sciences core	3 hours	Creative Arts core	3 hours
Mathematics core	3 hours	Life and Physical Sciences core	3 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
TECM 3010 - The Profession of Technical Communication	3 hours	TECM 3200 - Information Design for Electronic Media	3 hours
TECM 4010 - AI and Automation in Technical Communication	3 hours	TECM 3550 - Content Strategy in Technical Communication	3 hours
Component Area Option A core	3 hours	TECM 4200 - Research Methods for the Practitioner	3 hours
Elective	3 hours	Language, Philosophy and Culture core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
TECM 4180 - Advanced Technical Communication	3 hours	TECM 4100 - Proposal Writing	3 hours
TECM 4250 - Writing Technical Procedures and Manuals	3 hours	TECM 4190 - Technical Editing	3 hours
TECM elective-advanced	3 hours	Component Area Option B core	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
TECM 4500 - Content Analysis in Technical Communication	3 hours	TECM 4300 - Usability and User Experience in Technical Communication	3 hours
Practicum*	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Notes

*See “Practicum” above for more information.

Grad Track Options

Technical Communication, BS with grad track option leading to Professional and Technical Communication, MA

The Department of Technical Communication offers a BS with grad track option leading to an MA program for highly motivated technical communication majors. The grad track program will enable students to earn a BS and MA in five years. The grad track will also help students save money and prepare themselves for the rigors of graduate education while still enrolled as an undergraduate by first earning a bachelor's degree, then transferring graduate hours to the master's degree.

All applications are reviewed by the department's director of graduate studies. Students must contact the department to arrange a meeting. Email TCGrad@unt.edu for more information.

Eligibility

To be eligible to apply to the grad track program, students must

- Have maintained a cumulative 3.5 GPA, including transfer credit
- Have completed 75 undergraduate credit hours, including TECM 2700 and TECM 3010 with A's (75 credit hours are required for admission)
- Be a declared technical communication major
- Meet with the department's director of graduate studies and undergraduate advisor for a short interview

The admission decision is made by the department's director of graduate studies. The student's GPA and the following criteria inform that decision:

- A resume
- A response to a writing prompt
- Nominations from two TECM faculty
- An interview with the department's director of graduate studies

Course requirements

The learning outcomes in the undergraduate courses are met by the graduate courses. Grad track students will choose two courses in consultation with the director of graduate studies to replace undergraduate courses and to ensure that classes meet the appropriate level of preparation in both degree programs:

- TECM 5170 - Grants and Proposals (replaces TECM 4100 - Proposal Writing)
- TECM 5185 - Principles of Technical Communication (replaces TECM 4180 - Advanced Technical Communication)
- TECM 5191 - Digital Literacies for Professional Communicators (replaces TECM 3200 - Information Design for Electronic Media)
- TECM 5195 - Editing Technical Documents (replaces TECM 4190 - Technical Editing)
- TECM 5200 - Digital Content Strategies for Communication Professionals (replaces TECM 3550 - Content Strategy in Technical Communication)
- TECM 5740 - Content Analysis in Technical Communication (replaces TECM 4500 - Content Analysis in Technical Communication)
- TECM 5750 - Measuring Usability and User Experience for Professional and Technical Communication (replaces TECM 4300 - Usability and User Experience in Technical Communication)
- TECM 5000-level elective for TECM 4000-level elective

All remaining courses for Technical Communication, BS must be completed.

Restrictions

The grad track pathway requires students to take 6 graduate credits (2 courses) in their undergraduate senior year. Course work taken for undergraduate credit is considered advance credit, students must complete the 2 graduate courses within 12 calendar months of enrolling in their first graduate course

Students are not permitted to take more than 6 graduate credits until they fully complete the requirements for the BA or BS degree. Students who complete the 6 credits are automatically admitted to the MA program.

Students admitted to a grad track program must complete 90 credit hours before taking the courses in this program. Students must complete the bachelor's degree **within one academic year** of their first grad track course in order to have the graduate course credits transferred to their graduate plan of study.

Students in the grad track must apply formally for admission to the graduate program associated with the pathway. This requires submitting a formal application for admission to the Toulouse Graduate School typically during the fall semester of their senior year.

Minors

Content Strategy minor

The Content Strategy minor offers an innovative curriculum equipping students with essential skills to strategically plan, develop, and manage content across digital platforms and channels. Through a mix of coursework in writing, project management, data analytics, and marketing, students gain hands-on expertise to create cohesive digital experiences that engage users and align to business goals.

The 18-credit hour minor requires coursework in technical writing, marketing, and projective management. This blend of disciplines provides graduates with a strategic mindset and technical toolset to coordinate content effectively as social media specialists, digital marketers, web designers, SEO managers, and whatever new professions created by AI and automation advancements.

Requirements, 18 hours

The minor in Content Strategy equips students with skills to strategically plan, develop, and govern content across digital platforms. Through coursework integrating writing, project management, marketing, and analytics, students learn to create cohesive digital experiences that engage users and align to business objectives.

This innovative, application-focused minor positions students to address organizations' growing content needs and drive impactful outcomes in our evolving digital landscape.

The minor includes 18 credit hours and requires TECM 2700, 3010, 3550, 4500, and MKTG 3651. Additionally, students choose between INFO 4306 or LTEC 4060.

- INFO 4306 - Project Management for Information Systems

  or

- LTEC 4060 - Project Management and Applied Technology Performance Improvement

- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors
- TECM 2700 - Technical Writing
- TECM 3010 - The Profession of Technical Communication
- TECM 3550 - Content Strategy in Technical Communication
- TECM 4500 - Content Analysis in Technical Communication

Technical Communication minor

The minor requires a total of 18 semester hours. A minimum grade of C is required in each technical communication course counted toward the minor.

Required courses, 6 hours

- TECM 2700 - Technical Writing
- TECM 3010 - The Profession of Technical Communication

Remaining 12 hours

Students must choose an additional four courses (12 hours) with a TECM prefix. Three courses must be at the 3000 or 4000 level.

Undergraduate Academic Certificates

Artificial Intelligence in Professional Communication certificate

The four-course certificate examines the role of Artificial Intelligence (AI) in professional communication, emphasizing the strengths and limitations of AI-driven writing tools, its implications on visual technical content, and the evolving ethics and practices in AI-augmented documentation.

Requirements, 12 hours

The coursework provides students with essential knowledge and AI skills tailored to professional communication. Through hands-on courses, students learn to apply AI tools for content creation, data visualization, and data analysis, while critically evaluating ethical implications.

- TECM 1600 - AI in Professional Settings
- TECM 3100 - Visual Technical Communication
- TECM 4010 - AI and Automation in Technical Communication
- TECM 4500 - Content Analysis in Technical Communication

Digital Media Studies certificate (TECM)

In this certificate program, students learn to utilize and analyze a variety of digital media tools for the purposes of communication, collaboration and research, and to develop social, political, academic and professional networks. The certificate is interdisciplinary; students must take the three core courses from MRTS, COMM and TECM. Applicable electives may be taken from any department with permission.

Certificate requirements, 15 hours

Students may receive a certificate in digital media studies by successfully completing the following courses with a grade of B or higher.

Required courses, 9 hours

- COMM 3420 - Communication and New Technology
- MRTS 3620 - Digital Media and Society
- TECM 1500 - New Media Experience

Electives, 6 hours

Select from the following courses:

- COMM 3820 - Social Media Perspectives
- COMM 4320 - Communications and Virtual Gaming
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 4270 - Strategic Social Media
- MRTS 3445 - Video Game Histories
- MRTS 3525 - Content Development for Digital Media
- MRTS 3630 - Game Studies: Players, Culture and Industry
- MRTS 4415 - Topics in Film and Television Studies (when taught as “Media Genres/Authors - Video Game Authors”)
- MRTS 4450 - Topics in Media Industry Studies (when taught as “Digital Distribution”)
- MRTS 4665 - Gender, Race and Digital Media
- Internship option (COMM 4800, MRTS 4480 or TECM 4920) with approval from undergraduate advisor
- Other courses approved by undergraduate advisor

Technical Communication certificate

Students may receive a certificate in technical communication from the Department of Technical Communication by successfully completing the following courses with a grade of B or higher:

Courses, 12 hours

- TECM 2700 - Technical Writing
- Nine additional hours in TECM courses at the 3000 or 4000 level.

Additional information

Contact the undergraduate advisor for more information.

Writing in the Sciences certificate

The certificate explores effective communication in the sciences, emphasizing process-oriented techniques, the intersection of ethics and scientific inquiry, and the advanced skills required for proposals, manuals, and diverse scientific contexts.

Requirements, 15 hours

The Writing in the Sciences certificate provides students with specialized skills in communicating scientific and technical information to diverse audiences. Through coursework covering scientific writing genres, proposal development, technical procedures, and research ethics, students gain proficiency in conveying complex concepts and data to experts and laypersons.

The certificate program includes 15 credit hours and requires TECM 2700, 4100, and 4700. Additionally, students choose between TECM 1700 and PHIL 2600, as well as between TECM 4180 and 4250.

- TECM 1700 - Introduction to Professional, Science, and Technical Writing

  or

- PHIL 2600 - Ethics in Science

- TECM 2700 - Technical Writing
- TECM 4100 - Proposal Writing

- TECM 4180 - Advanced Technical Communication

  or

- TECM 4250 - Writing Technical Procedures and Manuals

- TECM 4700 - Writing in the Sciences

Department of World Languages, Literatures and Cultures

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Christoph Weber, Chair

Faculty

The Department of World Languages, Literatures and Cultures offers students instruction that enables them to understand, speak, read and write the language chosen for study. Further, the department helps students to gain, through the use of these tools, a knowledge of the countries where the language is spoken and, as a result of this knowledge, to gain an understanding of the people themselves.

The department's place in the College of Liberal Arts and Social Sciences is based on the effective performance of the task of creating a climate of understanding between peoples separated by linguistic and cultural barriers. The department maintains and promotes a strong program of studies in French, German, and Japanese furnishing the appropriate courses in language, literature, culture and pedagogy.

Departmental examination

Prior to enrollment in a foreign language course, a student who has earned high school credit for a foreign language or who has acquired language skills will be required to take an examination to determine appropriate placement. Based on the results of the examination and if credit is desired, the student will pay a fee for the posting of 3–12 hours of credit corresponding to credit earned in courses 1010–2050. Students will be required to enroll for their first language course at UNT according to the course level indicated by the results of the examination. Any questions should be directed to the Department of World Languages, Literatures and Cultures.

Faculty-led study abroad programs

Students majoring, minoring or just wanting to complete their foreign language requirement abroad can participate in several faculty-led programs offered by the department in French, German, Italian, and Japanese. Contact the departmental office for additional details.

Bilingual Education concentration

Interested students should consult with the Department of Teacher Education and Administration in the College of Education for further information.

All program courses in the Department of World Languages, Literatures and Cultures are taught in the specific language of the corresponding program, except for those carrying the prefix LANG or WLLC.

Majors

French, BA

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your French as well as earn a certificate in professional French through immersive study at UNT and abroad.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in French.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

39 hours of French, including

- FREN 1010 - Elementary French
- FREN 1020 - Elementary French
- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French
- Plus 27 semester hours of advanced work, including 6 hours in 4000-level courses or above

Placement or credit by examination may be used to satisfy

FREN 1010, FREN 1020, FREN 2040, FREN 2050

Suggested minors for BA with a major in French

Students who wish to earn a minor are encouraged to choose a second foreign language, business, computer science, economics, English, history and hospitality management.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

- Students majoring in French should consider taking history and geography courses that deal specifically with their language study.
- Minimum grade of C is required for a course to count toward the major.
- Minimum GPA of 2.75 in French course work is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
FREN 1010 - Elementary French	3 hours	FREN 1020 - Elementary French	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Component Area Option A core	3 hours
Social and Behavioral Science core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
FREN 2040 - Intermediate French	3 hours	FREN 2050 - Intermediate French	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Component Area Option B core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Science core	3 hours	Life and Physical Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Diversity and Global Issues	3 hours
FREN Elective - advanced	3 hours	French Elective - advanced	3 hours
French Elective - advanced	3 hours	French Elective - advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
FREN Elective-advanced	3 hours	FREN Elective-advanced	3 hours
FREN Elective - advanced	3 hours	FREN Elective-4000 level	3 hours
Elective	3 hours	FREN Elective-4000 level	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

German Studies, BA

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your German through the study at UNT and abroad.

Degree Requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in German Studies.

Hours required and general/college requirements

The German studies major consists of a minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the General University Requirements in the Degree and Program Requirements section of the catalog and the College of Liberal Arts and Social Sciences requirements.

Major requirements

Required courses, 18 hours

Demonstration of proficiency may be substituted for credit in courses equivalent to GERM 1010 through GERM 2050.

- GERM 1010 - Elementary German
- GERM 1020 - Elementary German
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German
- GERM 3060 - Advanced German I (Oral Communication)
- GERM 3070 - Advanced German II (Written Communication)

Advanced-level courses, 21 hours

Students take an additional 21 semester hours of advanced work, including 9 hours in 4000-level courses. Students have the option to enroll in two English-taught courses (6 hours) related to German culture, history and literature included in the list below.

- ENGL 4660 - Literature and the Holocaust
- GERM 3020 - Topics in German Studies
- GERM 3022 - Professional German
- GERM 3034 - Advanced German Grammar
- GERM 3040 - Topics in German Culture
- GERM 3042 - German Cultural History (1900-2020)
- GERM 3044 - Contemporary Germany
- GERM 3046 - German Culture Through Film
- GERM 3048 - Cultural History of Berlin
- GERM 3050 - Topics in German Literature
- GERM 3052 - German Literary Survey 1750-1918
- GERM 3054 - German Short Stories
- GERM 3056 - German Novella
- GERM 3058 - German Graphic Novels
- GERM 3996 - Honors College Mentored Research Experience
- GERM 4310 - Topics in Advanced German Culture
- GERM 4312 - The Weimar Republic
- GERM 4314 - The Third Reich
- GERM 4320 - Topics in German Cinema
- GERM 4330 - Topics in Advanced German Language
- GERM 4338 - German Translation
- GERM 4350 - Topics in Advanced German Literature
- GERM 4352 - German Travel Literature
- GERM 4354 - German Disaster Narratives
- GERM 4900 - Special Problems
- GERM 4920 - Cooperative Education in German
- GERM 4951 - Honors College Capstone Thesis
- HIST 4073 - World War II: The Soviet-German War
- HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815
- HIST 4365 - Modern Germany, 1815–Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933–1945
- WLLC 3010 - Exploring Global Cultures
- WLLC 3400 - The Holocaust and Film
- WLLC 3410 - German Popular Culture
- WLLC 3420 - German Graphic Novels

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Additional information

- A minimum grade of C is required for a course to count toward the German studies major.
- A minimum GPA of 2.5 in the course work that applies to the major is required for graduation.
- Additional courses taught in English may be approved in consultation with the German coordinator.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
GERM 1010 - Elementary German	3 hours	GERM 1020 - Elementary German	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Component Area Option A core	3 hours
Social and Behavioral Sciences core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
GERM 2040 - Intermediate German	3 hours	GERM 2050 - Intermediate German	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
Component Area Option B core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
GERM 3060 - Advanced German I (Oral Communication)	3 hours	GERM 3070 - Advanced German II (Written Communication)	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
GERM elective-advanced*	3 hours	GERM elective-4000 level*	3 hours
Elective	3 hours	Elective	3 hours
Elective advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
GERM elective-advanced*	3 hours	GERM elective-advanced*	3 hours
GERM elective-4000 level*	3 hours	GERM elective-advanced*	3 hours
Elective	3 hours	GERM elective-4000 level*	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

*See “Advanced-level courses” above.

Japanese, BA

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your Japanese as well as earn a certificate of achievement in Japanese through immersive study at UNT and abroad.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in Japanese.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements

39 hours of Japanese, including

- JAPN 1010 - Elementary Japanese
- JAPN 1020 - Elementary Japanese
- JAPN 2040 - Intermediate Japanese
- JAPN 2050 - Intermediate Japanese
- JAPN 3020 - Advanced Japanese I
- JAPN 3030 - Advanced Japanese II

Courses, 21 hours

Students take an additional 21 semester hours of advanced work, including 9 hours in 4000-level courses. Students who use JAPN 4150 to count toward the major must also take 9 hours of other JAPN 4000-level courses.

Suggested minors for BA with a major in Japanese

Students who wish to earn a minor are encouraged to choose a second foreign language, English, business, computer science, economics, history or hospitality management.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

- Students majoring in Japanese should consider taking history and geography courses that deal specifically with their language study.
- Minimum grade of C is required for a course to count toward the major.
- Minimum GPA of 2.75 in Japanese course work is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
JAPN 1010 - Elementary Japanese	3 hours	JAPN 1020 - Elementary Japanese	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Component Area Option A core	3 hours
Mathematics core	3 hours	Social and Behavioral Science core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
JAPN 2040 - Intermediate Japanese	3 hours	JAPN 2050 - Intermediate Japanese	3 hours
Life and Physical Science core	3 hours	Component Area Option B core	3 hours
Elective	3 hours	Life and Physical Science core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JAPN 3020 - Advanced Japanese I	3 hours	JAPN 3030 - Advanced Japanese II	3 hours
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
JAPN elective-advanced	3 hours	JAPN elective-advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
JAPN elective-advanced	3 hours	JAPN elective-advanced	3 hours
JAPN elective-4000 level	3 hours	JAPN elective-4000 level	3 hours
JAPN elective-4000 level	3 hours	Elective	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Spanish, BA

The Spanish section provides insight into world cultures and languages. While developing your Spanish, you can consider one of several professional Spanish certificates, teacher certification, or a minor in another language. There are opportunities for Spanish majors to study abroad.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in Spanish.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Liberal Arts and Social Sciences degree requirements.

Major requirements, 36-39 hours

A minimum of 36-39 hours of Spanish, including:

Required Spanish courses, 9-12 hours

- SPAN 1010 - Elementary Spanish and
- SPAN 1020 - Elementary Spanish

  or
- SPAN 1030 - Review of Elementary Spanish

- SPAN 2040 - Intermediate Spanish
- SPAN 2050 - Intermediate Spanish

Note

Placement or credit by examination may be used to satisfy SPAN 1010, SPAN 1020, SPAN 2040 and SPAN 2050.

Spanish core, 18 hours

A core of 18 hours of specific course work must be met:

Foundation Courses

Choose 3 courses (9 credit hours) from this group.

- SPAN 3001 - Advanced Conversation for Non-Native Speakers
- SPAN 3002 - Advanced Conversation for Native/Heritage Speakers
- SPAN 3003 - Advanced Grammar
- SPAN 3004 - Advanced Composition
- SPAN 3030 - Short Stories, Big Vibes: Latin America in Miniature
- SPAN 3050 - Readings in Hispanic Literature

Literature, Culture, and Linguistics

Choose 5 courses (15 credit hours) from this group.

- SPAN 3110 - Analysis of Hispanic Literature
- SPAN 3120 - Aspects of Contemporary Spanish Culture
- SPAN 3130 - Topics in Latin American Culture
- SPAN 3140 - Mexican Civilization
- SPAN 3150 - Spanish Culture and Civilization
- SPAN 3160 - Latin American Culture and Civilization
- SPAN 3180 - Latin American Culture Through Film
- SPAN 4010 - Aspects of Contemporary Mexican Culture
- SPAN 4210 - Spanish Phonetics and Pronunciation
- SPAN 4250 - Acquisition of Spanish as a Second Language
- SPAN 4260 - Linguistic Structures of Spanish
- Maximum of 2 professions courses (6 credit hours) from below may apply.
- SPAN 3510 - Spanish for Law Enforcement
- SPAN 3520 - Spanish for Social Services
- SPAN 3530 - Spanish for Hotel and Restaurant Management
- SPAN 3540 - Spanish for Travel and Tourism
- SPAN 3550 - Spanish for the Medical Professions I
- SPAN 3560 - Spanish for the Medical Professions II
- SPAN 4080 - Business Spanish
- SPAN 4150 - Foreign Language Teaching Methods

Capstone

Choose 1 course (3 credit hours) from this group.

- SPAN 4311 - Love, Sex and Power in the Literature of Spain
- SPAN 4361 - Latin America: Memory and Modernity

Other course requirements

None.

Minor

Suggested minors: Students who wish to earn a minor are encouraged to choose a second foreign language. Spanish majors should also consider history, geography, business, hospitality management and cultural studies courses that deal specifically with their area of interest.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Liberal Arts and Social Sciences.

Other requirements

- Students majoring in Spanish should consider taking history and geography courses that deal specifically with their language study.
- A minimum grade of C is required for a course to count toward the major.
- Minimum GPA of 2.75 in Spanish course work is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
SPAN 1010 - Elementary Spanish	3 hours	SPAN 1020 - Elementary Spanish	3 hours
Mathematics core	3 hours	Component Area Option A core	3 hours
Social and Behavioral Science core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
SPAN 2040 - Intermediate Spanish	3 hours	SPAN 2050 - Intermediate Spanish	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Science core	3 hours
Life and Physical Science core	3 hours	Elective	3 hours
Component Area Option B core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
SPAN 3003 - Advanced Grammar	3 hours	SPAN 3110 - Analysis of Hispanic Literature	3 hours
SPAN 3004 - Advanced Composition	3 hours	Spanish selection-Literature, Culture and Linguistics	3 hours
Spanish selection-Foundation Course	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CLASS Distribution-Communication and Digital Skills	3 hours	CLASS Distribution-Cultural Diversity and Global Issues	3 hours
Spanish selection-Literature, Culture and Linguistics	3 hours	Spanish selection-Literature, Culture and Linguistics	3 hours
Spanish selection-Literature, Culture and Linguistics	3 hours	SPAN selection-Capstone	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

French minor

A minor in French consists of a minimum of 21 semester hours in French, including 9 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to FREN 1010 through FREN 2050. A minimum grade of C is required for a course to count toward the minor.

German minor

A minor in German consists of a minimum of 21 semester hours in German, including 9 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to GERM 1010 through GERM 2050. A minimum grade of C is required for a course to count toward the minor.

Japanese minor

A minor in Japanese consists of a minimum of 21 semester hours in Japanese, including JAPN 3020 and JAPN 3030. Demonstration of proficiency may be substituted for credit in courses equivalent to JAPN 1010 through JAPN 2050. A minimum grade of C is required for a course to count toward the minor.

Spanish minor

A minor in Spanish consists of a minimum of 18 semester hours in Spanish (SPAN) courses, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent SPAN 1010 through SPAN 2050. A minimum grade of C is required for a course to count toward the minor.

Required courses

- SPAN 1010 - Elementary Spanish
- SPAN 1020 - Elementary Spanish
- SPAN 2040 - Intermediate Spanish
- SPAN 2050 - Intermediate Spanish

Note: SPAN 1030 may substitute for SPAN 1010/SPAN 1020.

Teaching English in a Global Context minor

To minor in linguistics, students must complete 18 hours.

Required courses

- LING 3070 - Introduction to Linguistics
- LING 4020 - Structure of Modern English
- LING 4080 - Teaching English as a Second Language

Plus 9 hours selected from

- LING 2040 - Endangered Languages
- LING 2070 - Language and Discrimination
- LING 4010 - Language Variation
- LING 4130 - Discovering Language from Data
- LING 4410 - World Englishes

All Level Teacher Certification

French teacher certification (not currently accepting students)

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in French.

Requirements

- FREN 1010 - Elementary French
- FREN 1020 - Elementary French
- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French
- FREN 4150 - Foreign Language Instruction and Assessment
- 6 hours of 4000-level French courses
- 18 hours of 3000- or 4000-level French courses
- Must pass the TExES Languages Other than English (LOTE) - French or the equivalent for French
- Must choose one of the following options to demonstrate level of oral proficiency in French prior to graduation: Official ACTFL Oral Proficiency Interview (OPI); Official ACTFL Oral Proficiency Interview - Computer (OPI-C).

Education courses, 21 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Additional requirements

See French, BA for additional course work and GPA requirements.

Students must also meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 119.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

German teacher certification (not currently accepting students)

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in German.

Requirements

- GERM 1010 - Elementary German
- GERM 1020 - Elementary German
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German

- GERM 3060 - Advanced German I (Oral Communication) or
- GERM 3070 - Advanced German II (Written Communication) or
- GERM 3034 - Advanced German Grammar

- GERM 4150 - Foreign Language Instruction and Assessment
- 6 hours of 4000-level German courses
- 15 hours of 3000- or 4000-level German courses
- Must pass the TExES Languages Other than English (LOTE)-German or the equivalent for German
- Must choose one of the following options to demonstrate the candidate's level of oral proficiency in German: Official ACTFL Oral Proficiency Interview (OPI); Official ACTFL Oral Proficiency Interview - Computer (OPI-C)

Education courses, 21 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Additional requirements

See German Studies, BA for additional course work and GPA requirements.

Students must also meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make an application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 119.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Spanish teacher certification (not currently accepting students)

The College of Liberal Arts and Social Sciences encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in GAB, Room 220, can assist students with specific requirements for teacher certification in Spanish.

Requirements

- SPAN 1010 - Elementary Spanish and
- SPAN 1020 - Elementary Spanish

  or

- SPAN 1030 - Review of Elementary Spanish

- SPAN 2040 - Intermediate Spanish
- SPAN 2050 - Intermediate Spanish

- SPAN 3001 - Advanced Conversation for Non-Native Speakers

  or

- SPAN 3002 - Advanced Conversation for Native/Heritage Speakers
- SPAN 3003 - Advanced Grammar
- SPAN 3004 - Advanced Composition
- SPAN 3110 - Analysis of Hispanic Literature
- SPAN 4150 - Foreign Language Teaching Methods

- SPAN 4210 - Spanish Phonetics and Pronunciation

  or

- SPAN 4260 - Linguistic Structures of Spanish

- 3 hours of 3000-level SPAN culture
- 3 hours of 4000-level SPAN literature
- 3 hours of 3000-4000 level SPAN
- Must pass the TExES Languages Other than English (LOTE)-Spanish or the equivalent for Spanish or the Bilingual Target Language Proficiency Test (BTLPT) for Spanish.
- Must choose one of the following options to demonstrate level of oral proficiency in Spanish prior to graduation; Official ACTFL Oral Proficiency Interview (OPI); Official ACTFL Oral Proficiency Interview-Computer (OPI-C).

Education courses, 21 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Additional requirements

Students must also meet all GPA requirements to apply for state certification. In order to enroll for the first required education course, the student must make application to the certification program in the College of Education in Matthews Hall, Room 105.

All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Undergraduate Academic Certificates

Certificate of Achievement in Japanese

Required courses

12 advanced hours, 6 of which must be at the 4000 level.

Language and Law certificate

The law is a profession of words, grammar, and linguistic acts. Statutes, jury instructions, and contracts are conveyed through language, as are crimes like threats, bribes, and perjury. Likewise, forensic linguistic evidence can play an important role in civil and criminal cases. The Language and Law certificate equips students to understand the nature of everyday communication, the more specialized linguistic acts found in legal contexts, and the ways in which linguistic evidence can be used in prosecution and defense. The certificate requires five courses. The first three courses are specific: LING 2080 - The Language of Courts and Crime, LING 3020 - Forensic Linguistics, and LING 3060 - Principles of Language Study. With the second two courses, students choose from a set of Linguistics electives, allowing them to tailor their experience

to their specific interests in language and law: from language change to accent discrimination to computational linguistic methods and more. This certificate is suited for students planning careers in law enforcement and within the legal system, such as paralegals, translators, or interpreters, as well as attending law school or graduate studies in a wide variety of related fields

Required courses, 9 hours

- LING 2080 - The Language of Courts and Crime
- LING 3020 - Forensic Linguistics
- LING 3060 - Principles of Language Study

Choose two elective courses, 6 hours

- LING 2070 - Language and Discrimination
- LING 3040 - The Politics of Language
- LING 3080 - Language and Society
- LING 3090 - Discourse Analysis: Talking and Telling
- LING 4010 - Language Variation
- LING 4070 - History of the English Language
- LING 4090 - Semantics and Pragmatics
- LING 4135 - Python Programming for Text
- LING 4140 - Computational Linguistics
- LING 4410 - World Englishes
- LING 4920 - Linguistics and Law Internship

Professional Spanish certificate (not currently accepting students)

This program is not currently accepting students.

This certificate requires 15 hours of advanced Spanish, including:

Required courses

Students must take any two of the following Spanish courses as part of their certificate program. These courses may be taken simultaneously to each other and to the professions courses, but not after the professions courses:

- SPAN 3001 - Advanced Conversation for Non-Native Speakers
- SPAN 3002 - Advanced Conversation for Native/ Heritage Speakers
- SPAN 3003 - Advanced Grammar
- SPAN 3004 - Advanced Composition

Professional Spanish, 6-9 hours

Students must take a minimum of two courses in professional Spanish chosen from:

- SPAN 3510 - Spanish for Law Enforcement
- SPAN 3520 - Spanish for Social Services
- SPAN 3530 - Spanish for Hotel and Restaurant Management
- SPAN 3540 - Spanish for Travel and Tourism
- SPAN 3550 - Spanish for the Medical Professions I
- SPAN 3560 - Spanish for the Medical Professions II
- SPAN 4040 - Spanish Writing for the Mass Media Professions
- SPAN 4080 - Business Spanish

0-3 additional advanced hours

Students may take any Spanish upper-division course (3000 or 4000 level) to fulfill the 15 credit hours.

Department of Aerospace Studies

Departmental Office
AFROTC Building, Room 123
AFROTC-Det 835

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Lt Col Matthew Campise, Chair

Faculty

The Air Force Reserve Officer Training Corps (AFROTC) program (Aerospace Studies) recruits, educates and commissions officer candidates as an integral part of the UNT curriculum. The Air Force ROTC program consists of three parts: the General Military Course (first two years); Summer Field Training (two weeks over the summer); and the Professional Officer Course (last two years). Students enroll in AERO classes at the same time and in the same manner as other UNT courses. AERO courses normally receive academic credit as part of a student's electives. Each instructor is an active duty Air Force officer.

Four-year program

The first two years of the Air Force ROTC four-year program—the General Military Course (GMC)—consist of one hour of classroom work and two hours of leadership laboratory each week. Cadets who wish to compete for an enrollment allocation and entry into the last two years of the program—the Professional Officer Course (POC)—must do so under the requirements of the Professional Officer Course Selection Process. This process uses qualitative factors such as grade point average, unit commander evaluation and aptitude test scores to determine a student's officer potential. After POC selection, students must complete the two-week Field Training encampment at an assigned Air Force base. Cadets enrolled in the POC attend class three hours a week and participate in a weekly leadership laboratory lasting two hours. All GMC and POC cadets must also participate in weekly physical training consisting of at least two sessions lasting one hour each.

In the POC, cadets apply what they have learned in the GMC and at Field Training. The AFROTC detachment at UNT has a cadet corps based on the Air Force organizational pattern of flight, squadron, group and wing. POC cadets are assigned to leadership positions, conduct the leadership laboratories and manage the unit's cadet corps.

Once enrolled in the POC, cadets are enlisted in the Air Force Reserve and assigned to the obligated reserve section. This entitles them to a monthly, non-taxable allowance during the calendar year.

Two- and three-year programs

The last two years of the AFROTC program consist of the Professional Officer Course (POC). Students with at least two undergraduate academic years remaining at UNT may apply for a two- or three-year program, sign up for GMC courses, and compete for an enrollment allocation for entry into the POC. Entrance into the POC is highly competitive; two- and three-year applicants must be selected through the selection process described above.

Leadership Laboratory

Cadets must take a required Leadership Laboratory (LLAB) that consists of a two-hour block per week throughout their enrollment in AFROTC. LLAB is conducted within the framework of the cadet organization with a progression of experiences designed to develop each student's leadership potential. The curriculum involves study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. Students develop leadership in a wide variety of practical, supervised environments.

Physical Training (PT)

Each cadet must attend at least two one-hour Physical Training (PT) sessions per week. PT is designed to motivate cadets to pursue an active, physically fit lifestyle. Cadets must meet Air Force physical fitness requirements to attend Field Training, enter the POC and to be commissioned.

Uniforms and textbooks

Uniforms and textbooks for AFROTC courses are issued at no cost to the cadets.

Scholarships

Current emphasis in the Air Force ROTC college scholarship program is to award scholarships to candidates pursuing undergraduate engineering or other scientific and technical disciplines. Nearly 90 percent of Air Force ROTC scholarships are awarded in these disciplines. However, students in every degree program enjoy scholarship opportunities as the Air Force seeks to engage students who excel both academically and militarily. Scholarships are awarded at various amounts in increments of four, three and two years and entitlements may be extended to cover a fifth year of school if the student is taking an approved technical major.

Eligibility requirements

Air Force ROTC is open to any male or female UNT student completing any undergraduate academic degree. Graduate students may be eligible for the Air Force ROTC program, but should consult the UNT Air Force ROTC recruiting officer for additional details due to the program's unique requirements.

GMC entry requirements include:

1. full-time student status (minimum 12 hours);
2. good physical condition;
3. being of good moral character; and
4. being able to compete for POC before reaching 29 years if programmed for flying training or 39 years if programmed for non-flying training.

POC entry requirements include:

1. requirements 1–4 above;
2. U.S. citizenship;
3. at least a 2.0 cumulative grade point average;
4. at least two undergraduate academic years remaining at UNT;
5. passing score on the Air Force Physical Fitness Assessment;
6. pass Air Force medical examination; and
7. completion of Summer Field Training.

Contact the Aerospace Studies department at 940-565-2074 for additional information on how to join.

Active-duty service commitments

Cadets in the POC and second-year Air Force scholarship cadets are contract cadets who agree to accept a commission as a second lieutenant in the Air Force after completing all Air Force ROTC and academic degree requirements. Most cadets incur a four-year, active-duty commitment which begins after commissioning, but may extend to up to ten years of active duty if selected for certain career fields (e.g. pilot).

Credit for University Core Curriculum

With written approval from the students' major department, completion of upper-division AERO courses may be substituted for up to 3 hours credit toward the Political Science requirement of the University Core Curriculum.

Courses of instruction

All courses of instruction are located in Course Descriptions.

The GMC curriculum includes 1000- and 2000-level AERO lecture courses with associated lab (LLAB) and recitation (PT) hours.
The POC curriculum includes 3000- and 4000-level AERO lecture courses with associated lab (LLAB) and recitation (PT) hours.

Minors

Aerospace Studies minor

Requirements

A minor in aerospace studies requires 19 hours, including:

- AERO 3310 - Leading People and Effective Communication
- AERO 3320 - Leading People and Effective Communication
- AERO 4310 - National Security Affairs/Preparation for Active Duty
- AERO 4320 - National Security Affairs/Preparation for Active Duty

One of the following

GMC (lower level courses) or applicable cooperative education class approved by department chair

- AERO 1030 - USAF Heritage and Values
- AERO 1040 - USAF Heritage and Values
- AERO 2030 - Team and Leadership Fundamentals
- AERO 2040 - Team and Leadership Fundamentals

Department of Military Science

Departmental Office
1500 S. Bonnie Brae St. MGVP
Army ROTC

Mailing address:
1155 Union Circle #310977
Denton, TX 76203-5017
940-369-8011
Web site: www.armyrotc.unt.edu

Lieutenant Colonel Scott Pieluszczak, Department Chair and Professor of Military Science

Faculty

Captain Trae Wolfe: Executive Officer and Assistant Professor of Military Science

Captain Jake Jackson: Operations & Scholarship Officer and Assistant Professor of Military Science

Captain Tanner Tallman: Cavazos Recruiting Officer and Military Science Instructor

Sergeant First Class Ferdinand Awumee: Senior Military Science Instructor

Sergeant First Class Jesus Romero: Texas Army National Guard On Campus Recruiter and Adjunct Military Science Instructor

Lieutenant Colonel (retired) Bruce Cunningham: Military Science Instructor

Major Diego Hernandez: Adjunct Assistant Professor of Military Science

Staff

Misty Willis: Senior Administrative Specialist

Command Sergeant Major (retired) Carrie Glover: U.S. Army Human Resource Assistant

The Department of Military Science offers an Army ROTC program that develops leadership skills and provides military education vital to a career as an Army officer as an integral part of the UNT curriculum. Active-duty Army personnel provide all classroom instruction and program administration.

The program is open to male and female students. Freshmen may enroll in the four-year program, and sophomores through graduate students with at least two undergraduate or graduate academic years remaining at UNT may apply for a two- or three-year program. Deviations from these programs must be approved by the chair of the Department of Military Science. Students who complete any program with at least a bachelor's degree are awarded commissions as U.S. Army officers.

Three- and four-year program eligibility requirements

1. Full-time student (12 credit hours).
2. Good physical condition (ACFT 420 or above).
3. Good moral character.
4. Able to complete the Basic/Advanced Course prior to the age of 31 years (year of commissioning). Non-scholarship students can be granted waivers up to 39 years of age.
5. Able to meet eligibility requirements 2–5 of the two-year program below after the first two years of Army ROTC training (Basic Course).

Enrollment procedures for the first two years of Army ROTC, known as the Basic Course, are the same as for any other course at UNT. In the last semester of the Basic Course, students who wish to enroll for the last two years of the program, known as the Advanced Course, must contract with the U.S. Army.

Requirements for contracting (non-scholarship) are a 2.5 GPA, approved medical screening (DODMERB), and a passing score on the Army Physical Fitness Test. As a Contracted cadet, each student receives a tax-free stipend for the duration of the school year of $450 per month.

Two-year program eligibility requirements

1. Meet eligibility requirements 1–4 of the four-year program.
2. U.S. citizen.
3. Have at least a 2.5 cumulative grade point average to be awarded an Army scholarship.
4. Have at least two undergraduate or graduate academic years remaining at UNT.
5. Pass a physical fitness test and pass a Department of Defense Medical Examination Review Board (DODMERB) medical examination.
6. Complete a paid six-week summer training course at Fort Knox, Ky.

Once students in the two-year program compete successfully for a slot and enter into the Advance Course, they will receive the same stipend as other cadets. Each student accepted into the two-year program must contract with the U.S. Army.

Credit for required courses

Completion of 12 semester hours of upper division ROTC courses can be substituted for PSCI 2305 with prior written approval from the student's major department.

Leadership Laboratory

A required corresponding level leadership laboratory is taken an average of three hours per week throughout the student's enrollment in AROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential.

Leadership laboratory involves a study of Army customs and courtesies, tactics and techniques, drill and ceremonies, career opportunities in the Army, and the life and work of an Army junior officer. Students develop their leadership potential in a practical, supervised laboratory, which typically includes scenario-driven activities.

Army ROTC physical training (PT) program

This required program includes three mandatory one-hour PT sessions each week. PT involves enhancing the fitness level of cadets and prepares them to meet AROTC and Army standards. The program is designed to motivate cadets to pursue a physically fit and active lifestyle and to improve both safety and efficiency of physical training within AROTC. Cadets must meet physical fitness requirements in order to be commissioned.

Special consideration to veterans

Students with prior active duty military service may be granted waivers on a portion of the Basic Course. For information, consult the department office.

Uniforms

Uniforms and equipment for Army ROTC courses are issued to contracted/scholarship cadets. Textbooks and study material are issued at no cost to non-contracted cadets.

Scholarships

Scholarships, available to qualified students in the four-year, two-year and two and a half-year programs, provide full tuition, or Room and Board, a textbook allowance ($1,200) and a tax-free subsistence allowance between $300 and $500 per month. Competition is based on SAT or ACT results, high school or college academic record, extracurricular and athletic activities, and passing the ACFT. For information, contact the department office.

Military Science minor

To be eligible for a minor in military science, the student must meet the following requirements.

- Be enrolled in the University of North Texas ROTC program (Department of Military Science); and
- Have military science accepted as a minor by the student's major degree department.

Course requirements

Successfully complete, with a grade of B or better, four of the following courses:

- MILS 3341 - Leadership I
- MILS 3342 - Leadership II
- MILS 4341 - Advanced Leadership I
- MILS 4342 - Advanced Leadership II
- MILS 4391 - Conference Course

Plus 6 additional hours

Successfully complete 6 additional military science hours with a grade of B or better (MILS 1180 can be repeated for credit to meet this requirement).

Army ROTC Advanced Camp

Successfully complete the Army ROTC Advanced Camp offered annually in the summer.

U.S. Army prerequisites

Meet all U.S. Army prerequisites to earn a commission as an Army officer upon graduation.

University Courses

Main Office
General Academic Building, Room 220
College of Liberal Arts and Social Sciences

Mailing address:
1155 Union Circle #305189
Denton, TX 76203-5017
940-565-2051

Nancy Stockdale, Associate Dean

Faculty

University Courses are interdisciplinary and may be counted as elective hours by all eligible UNT students. On recommendation of the department concerned, they may be counted toward a major or minor.

Frank W. and Sue Mayborn School of Journalism

Main Office
Sycamore Hall, Room 206

Mailing address:
1155 Union Circle #311460
Denton, TX 76203-5017
940-565-2205
Fax: 940-565-2370

Office of Student Advising
Sycamore Hall, Room 205
940-565-3365
Web sites: www.journalism.unt.edu

James Mueller, Interim Dean

Faculty

Careers in journalism and strategic communication are exciting, dynamic and critical to the future of an informed and enlightened American society. The Mayborn School of Journalism provides students with the creative, practical and critical-thinking skills for a successful career in the following fields:

- news, political, entertainment and sports reporting and producing; visual (stills and video) and written content creation across platforms that includes storytelling for social media, web outlets, television, newspapers, magazines, books;
- advertising and strategic communication in corporations, agencies, profit and non-profit organizations, and media;
- public relations and strategic communication in agencies, corporations, government, and non-profit organizations;
- teach journalism and mass communication in secondary schools.

The curriculum prepares students with hands-on skills for work in multiple media platforms; to develop their skills to analyze, evaluate and inform; and to consider the ethical implications of mass communication and its impact in today's world. Students learn in multimedia labs using state-of-the-art equipment and software. The Mayborn School of Journalism comprises six concentrations: advertising; video, broadcast and multimedia journalism; digital and print journalism; photojournalism; public relations, and sports journalism and communication.

The journalism major with a video, broadcast and multimedia, print and digital, or photojournalism concentration prepares students for careers in reporting, writing, producing, editing and photojournalism (shooting video and stills) for social media, web outlets, television, newspapers, magazines and radio. With a strong focus on multi-platform journalism, students receive hands-on opportunities as news reporters, sports reporters, writers, producers, photojournalists, designers, and editors for online, on air and in print for the *North Texas Daily*, NTDaily.com, NTDaily TV, Hatch photo agency and other area media. Teacher certification is available in journalism.

Students receive hands-on experience from faculty with extensive professional experience in broadcast, print, online and digital news. They also can complete internships at news outlets including newspaper, television, radio and web organizations in the Dallas-Fort Worth area, the nation's fifth largest media market, and in other news organizations in the area and across the state.

The journalism major with an advertising or public relations concentration prepares students to work in strategic communication in a variety of settings: advertising/public relations, marketing agencies, corporations, non-profit agencies, government, public affairs, media, entertainment and more. Students gain critical thinking skills, creative practice and professional experience by working with real world clients to develop campaigns that accomplish the strategic communication goals of the companies. Students create materials including advertisements for traditional and non-traditional media, newsletters, news releases, public service announcements, web sites and social media strategies. Students also plan and execute events. Students can gain experience through SWOOP, the student-managed advertising and public relations agency.

Faculty in the advertising and public relations concentrations have decades of professional experience and extensive networks and contacts in the industries. Students are required to complete internships at companies in Dallas-Fort Worth, which is the fifth largest media market and one of the fastest growing corporate job hubs in the nation.

Vision statement

To create the most innovative professional and academic program while maintaining our journalism heritage.

Mission statement

To prepare students with ethical values, life-time communication and intellectual skills, as well as for successful careers in the professions represented by the school's undergraduate departments and graduate degree programs.

Accreditation

The Frank W. and Sue Mayborn School of Journalism is among the elite journalism programs that have earned national accreditation by the ACEJMC, the Accrediting Council on Education in Journalism and Mass Communication. (University of Kansas School of Journalism, Stauffer-Flint Hall 1435 Jayhawk Blvd., Lawrence, KS 66045; telephone 785-864-3973; or visit www.acejmc.org).

Academic advising

Information about academic matters is available in the Office of Student Advising for the School of Journalism. Students will work with professional and faculty advisors concerning degree audits, application of transfer credit, individual career needs and general academic requirements.

Degree audit

Each student should have a degree audit prepared by the School of Journalism. This official degree audit should be made upon completion of new student orientation. Transfer students should have degree audits prepared during their first term/semester at UNT. Information is available from the Journalism Office of Student Advising office, Sycamore Hall, Room 205.

Programs of study

The program is divided into six concentrations: advertising; video, broadcast and multimedia journalism; digital and print journalism; photojournalism; public relations, and sports journalism and communications.

Core curriculum

Candidates for the Bachelor of Arts degree in the Mayborn School of Journalism must complete the University Core and the Journalism degree requirements shown below. Students should see the Office of Student Advising for their major for more information.

University Core Curriculum

1. Communication (English Composition and Rhetoric) (6 hours): See approved list in the Academics section of this catalog.
2. Mathematics (3 hours): See approved list in the Academics section of this catalog.
3. Life and Physical Sciences (6 hours): See approved list in the Academics section of this catalog.
4. American History (6 hours): See approved list in the Academics section of this catalog.
5. Government/Political Science (6 hours): See approved list in the Academics section of this catalog.
6. Creative Arts (3 hours): See approved list in the Academics section of this catalog.
7. Language, Philosophy and Culture (3 hours): See approved list in the Academics section of this catalog.

8. Social and Behavioral Sciences (3 hours): See approved list in the Academics section of this catalog.
9. Component Area Option (6 hours): See approved list in the Academics section of this catalog.

Mayborn School of Journalism degree requirements

The following requirements are in addition to or a specification of the University Core Curriculum requirements for Bachelor of Arts degrees.

1. Mathematics (3 hours, also satisfies the university core): MATH 1680. Students must follow all prerequisites as listed in this catalog.
2. Foreign Language (6–8 hours, or proficiency): two foreign language classes in the same language from 1010 and 1020 are required. Students may test out of these courses and still satisfy the requirement.
3. Social Science/Marketing (12 advanced hours): selected from 3000- or 4000-level courses in anthropology, economics, geography (regional science only), history, philosophy, political science, psychology, social work, sociology and marketing.

Major and minor

For requirements in the major and minor, students should consult "University Core Curriculum" in the Academics section of this catalog, and department or division sections.

Other requirements

Elective hours as needed at either the lower level or advanced level to meet the minimum of 120 semester hours for graduation, including 42 advanced hours. Electives should be chosen in consultation with an advisor.

Internships

Students can gain additional experience through internships at web outlets, television and radio stations, newspapers, magazines, book publishing companies, advertising agencies, public relations agencies, and large and small businesses throughout the Dallas–Fort Worth region and the nation.

Because a journalism education provides students with strong writing, research and critical thinking skills, journalism graduates also find work at a variety of jobs outside the media industry or use the degree to enter graduate or law studies.

Mayborn Conference

The Mayborn School of Journalism hosts the nationally acclaimed Mayborn Literary Nonfiction Conference each year. For more information, go to journalism.unt.edu/mayborn conference.

North Texas Daily

The award-winning *North Texas Daily*, UNT's student newspaper in print and online, provides practical experience for UNT students in and outside the School of Journalism. The Student Publications Committee selects the editor each term/semester, and staff jobs are open to any UNT student. The *Daily* is published once a week in the fall and spring terms/semesters and less frequently in the summer. The *Daily* has been providing news and entertainment to UNT students since 1948. For more information, contact the *Daily's* advisor at 940-565-2205, or visit the Daily's web site at www.ntdaily.com.

North Texas Daily TV

Beside working on the student-run newspaper *NTDaily* and NTDaily.com, students may also practice the skills they learn in journalism classes by working on the NTDaily TV newscast, sports talk shows and highlight shows, community affairs, and other local programs. The student-produced programming is shown on Denton Community Television (DCTV), the city's public access channel which is operated on campus by the Mayborn School of Journalism. Students may also create and produce other programming of interest to the university community and residents of Denton.

SWOOP Agency

SWOOP is a student-managed advertising and public relations agency doing real work for real clients. Under the guidance of faculty with professional agency experience, students come up with big ideas that build their clients' businesses while also building their resumes. Students work on a variety of projects in positions such as account management, account planning, media, public relations, copy writing, art direction and social media. Students may apply as volunteers or receive practicum credit.

Ad Team/National Student Advertising Competition

Ad Team is a group of dedicated students who come together to create, develop and execute an integrated communications campaign for a national client. This intensive immersion in an advertising campaign, under the guidance of veteran faculty, culminates in the American Advertising Federation's National Student Advertising Competition where the Ad Team pitches its campaign to a panel of professional judges from the communications industry.

HATCH

HATCH is a student-run agency that offers real world experience for visual storytellers. Student photographers cover events, produce portraits, document anything from research to architecture and tell stories through multimedia video. The experience gives photojournalism students the opportunity to get hands-on training plus on-the-job work experience. The team includes photographers with diverse skills including studio and on-location lighting, documentary or editorial storytelling and more.

AGENZ PR

AGENZ PR is a Generation Z-led UNT organization founded in 2019, curated amongst hand-selected junior and senior students. We focus on diversity, data, innovation and digital content while providing a fresh and modern perspective.

Majors

Advertising and Brand Strategy, BS

A degree in advertising and brand strategy from the Mayborn School of Journalism prepares students to design, manage, and lead equitable advertising campaigns in the context of a multicultural society. Students will graduate with applied creativity, strategic problem-solving, and consumer insight skills gained from extensive hands-on experience working in state-of-the-art technology labs and across media platforms.

Program requirements

Degree requirements

Hours required

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the Frank W. and Sue Mayborn School of Journalism requirements.

Major requirements

42 semester hours in advertising and brand strategy, and noted interdisciplinary courses. Check catalog for prerequisites before enrolling in any advanced course.

Advertising and Brand Strategy

42 semester hours in advertising and brand strategy.

Foundation courses, 12 hours

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 1100 - Applied Design for Advertising and Public Relations
- ADVG 2000 - Digital Advertising Tools and Analytics
- ADVG 2100 - Inclusive Advertising

Professional Track courses, 12 hours

- ADVG 3000 - Copywriting for Brands
- ADVG 3010 - People-Centered Copywriting
- ADVG 3100 - Advertising Art Direction for Brands
- ADVG 3110 - Representation Through Advertising Art Direction
- ADVG 3200 - Advertising Account Management
- ADVG 3220 - Social Media Client Partnerships
- ADVG 3300 - Advertising Strategy and Insights
- ADVG 3310 - Advertising Research and Campaign Evaluation
- ADVG 3400 - Experiential Advertising and Brand Activations
- ADVG 3500 - Advertising Media Buying and Planning
- ADVG 3510 - Programmatic and Tailored Advertising
- ADVG 4000 - Advanced Advertising Art Direction Workshop

Students may choose four courses from the list above, or take three courses from the list above and one course from the following courses:

- JOUR 2400 - Fundamentals of Public Relations Practices
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 4270 - Strategic Social Media
- JOUR 4620 - Mass Communication Law and Ethics
- JOUR 4820 - History of American Media
- ICON 3800 - Consumer Psychology
- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- MKTG 4120 - Consumer Behavior

Interdisciplinary courses, 9 hours

- MDSE 3900 - Branding and Promotion
- MGMT 4235 - Social Entrepreneurship
- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors

Senior Experience in Advertising, 9 hours

- ADVG 4100 - Advertising Creative Collective and Freelancing

- ADVG 4300 - Advertising Full-Service Campaigns

  or

- ADVG 4400 - Advertising Campaigns Competition

- ADVG 4200 - Advertising Career Advancement

  concurrently with one of three courses below

- ADVG 4800 - Professional Internship
- JOUR 4805 - Agency PR Practicum
- ADVG 4815 - SWOOP Agency Practicum

Other course requirements

The following requirements are prerequisites for all advanced advertising courses:

- MATH 1680 - Elementary Probability and Statistics
- JOUR 4250 - Race, Gender and the Media: A Methods Approach

Complete the following with a grade of C or better:

- ENGL 1310 - First-Year Writing I

  or

- TECM 1700 - Introduction to Professional, Science, and Technical Writing

- ENGL 1320 - First-Year Writing II

  or

- TECM 2700 - Technical Writing

- Complete 9 hours of advanced level coursework in Sociology (SOCI) or Anthropology (ANTH).

Minor

Students must complete an 18-hour minor outside the advertising and brand strategy (ADVG) coursework and must choose their minor in consultation with the Mayborn School of Journalism Advising office. Minors can be chosen that support student Professional Track coursework.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in advertising and brand strategy are required to maintain a 2.0 cumulative UNT GPA to enroll in advertising courses and have a 2.5 GPA in the major in order to graduate.

a. Maintain a 2.0 cumulative UNT GPA.

b. Attain a 2.5 GPA in all major courses upon graduation.

c. No more than 12 semester hours of advertising credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 or more semester credit hours, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADVG 1000 - Principles of Advertising and Brand Strategy	3 hours	ADVG 2000 - Digital Advertising Tools and Analytics	3 hours
ADVG 1100 - Applied Design for Advertising and Public Relations	3 hours	ADVG 2100 - Inclusive Advertising	3 hours
Composition option	3 hours	Mathematics core	3 hours
Component Area Option A core	3 hours	Political Science core	3 hours
Political Science core	3 hours	Composition option	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors	3 hours
Creative Arts core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Component Area Option B core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Social and Behavioral Sciences core	3 hours	Advanced ANTH or SOCI course	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	MGMT 4235 - Social Entrepreneurship	3 hours
MDSE 3900 - Branding and Promotion	3 hours	Professional Track required course	3 hours
Professional Track required course	3 hours	Professional Track required course	3 hours
Advanced ANTH or SOCI course	3 hours	Professional Track course option	3 hours
Minor outside ADVG	3 hours	Minor outside ADVG	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADVG 4100 - Advertising Creative Collective and Freelancing	3 hours	ADVG 4200 - Advertising Career Advancement	2 hours
ADVG 4300 - Advertising Full-Service Campaigns	3 hours	Advertising Internship or Practicum	1 hour
Elective	3 hours	Advanced ANTH or SOCI course	3 hours
Minor outside ADVG	3 hours	Elective	3 hours
Minor outside ADVG	3 hours	Minor outside ADVG	3 hours
		Minor outside ADVG	3 hours
Total	15 hours	Total	15 hours

Journalism with a concentration in Digital Journalism, BA

In the Mayborn School of Journalism, you learn to communicate and tell stories relevant to society's needs. The digital journalism concentration focuses on news reporting and trains you in digital practices currently employed in the industry.

Program requirements

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the Mayborn School of Journalism Degree Requirements.

Major Requirements

46 semester hours in digital journalism. Check catalog for prerequisites before enrolling in any advanced course.

Journalism foundation requirements

The following requirements are prerequisites for all advanced journalism courses:

1. Complete the following with a 2.0 cumulative UNT GPA:
   - JOUR 1210 - Mass Communication and Society
   - JOUR 2310 - Introduction to Media Writing
   - JOUR 4250 - Race, Gender and the Media: A Methods Approach
2. The journalism math requirement for all concentrations:
   - MATH 1680 - Elementary Probability and Statistics
3. Complete the following with a grade of C or better:
   - ENGL 1310 - First-Year Writing I
   - ENGL 1320 - First-Year Writing II

Digital Journalism concentration

46 semester hours in journalism.

Foundation courses, 6 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing

Writing/reporting/editing, 6 hours

- JOUR 3321 - News Reporting and Writing
- JOUR 3322 - Copyediting

Advanced writing/reporting/editing, 6 hours

One required course:

- JOUR 4410 - Reporting of Public Affairs

Plus 3 hours selected from

- JOUR 3310 - Feature Writing
- JOUR 4321 - Opinion Writing
- JOUR 4350 - Sports Journalism

Visual journalism, 9 hours

One required course:

- JOUR 3300 - Introduction to Visual Communication for News

Plus 6 hours selected from

- JOUR 3340 - Digital Media for Journalists
- JOUR 3700 - Fundamentals of Photojournalism
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4850 - Magazine Production

Critical thinking course, 3 hours

- JOUR 4250 - Race, Gender and the Media: A Methods Approach

Professional application course, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4810 - News or Sports Practicum

Law and ethics, 3 hours

- JOUR 4620 - Mass Communication Law and Ethics

Capstone course, 3 hours

- JOUR 4999 - News Capstone

9 additional hours

9 additional hours of JOUR or ADVG coursework. Below is a list of recommended courses:

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 1100 - Applied Design for Advertising and Public Relations
- JOUR 2300 - Principles of News
- JOUR 3260 - Web Design for Journalism
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3330 - Mobile Journalism
- JOUR 3343 - Visual News Storytelling
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4220 - Business Journalism
- JOUR 4240 - Comparative International Media Systems
- JOUR 4270 - Strategic Social Media
- JOUR 4280 - Media Management
- JOUR 4290 - Media Innovation Lab
- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web
- JOUR 4355 - Sport Media Relations
- JOUR 4530 - News Study Abroad
- JOUR 4820 - History of American Media

Other course requirements

None.

Minor

An 18-hour minor outside the Mayborn School of Journalism.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in journalism are required to maintain a 2.0 cumulative UNT GPA to enroll in journalism courses and have a 2.5 GPA in JOUR and ADVG courses used in the major to graduate.

a. A grade of C or higher is required for all journalism courses to be applied toward the major/minor degree requirements.

b. No more than 12 semester hours of journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 or more semester credit hours, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
JOUR 1210 - Mass Communication and Society	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Component Area Option B core	3 hours
Political Science core	3 hours	Political Science core	3 hours
JOUR Foreign Language-elementary	3 hours	JOUR Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
JOUR 2310 - Introduction to Media Writing	3 hours	JOUR 3322 - Copyediting	3 hours
JOUR 3300 - Introduction to Visual Communication for News	3 hours	American History core	3 hours
American History core	3 hours	Language, Philosophy and Culture core*	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Life and Physical Sciences core	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JOUR 3321 - News Reporting and Writing	3 hours	JOUR 4410 - Reporting of Public Affairs	3 hours
Advanced Visual Communication option	3 hours	Advanced Visual Communication option	3 hours
Advanced Social Science option	3 hours	Advanced Social Science option	3 hours
Advanced Social Science option	3 hours	Minor outside journalism	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	JOUR 4620 - Mass Communication Law and Ethics	3 hours
Advanced writing elective	3 hours	JOUR 4999 - News Capstone	3 hours
Required elective option	3 hours	Professional Internship or Practicum	3 hours
Required elective option	3 hours	Required elective option	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

*Also used to satisfy one of the Advanced Social Science option courses.

Journalism with a concentration in Photojournalism, BA

In the Mayborn School of Journalism, you learn to communicate and tell visual stories relevant to society's needs. The photojournalism concentration trains you in visual storytelling practices currently employed in the industry.

Program requirements

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the Mayborn School of Journalism requirements.

Major requirements

46 semester hours in journalism in photojournalism. Check catalog for prerequisites before enrolling in any course.

Journalism foundation requirements

The following requirements are prerequisites for all advanced journalism courses.

1. Complete the following with a 2.0 cumulative UNT GPA:

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing
- JOUR 4250 - Race, Gender and the Media: A Methods Approach

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. Complete the following with a grade of C or better.

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II

Photojournalism concentration

46 semester hours in journalism.

Foundation courses, 6 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing

Writing/reporting/editing, 6 hours

- JOUR 3321 - News Reporting and Writing

  OR
- JOUR 3323 - News Writing for Broadcast and Web

- JOUR 3322 - Copyediting

Advanced writing/reporting/editing, 6 hours

- JOUR 4410 - Reporting of Public Affairs

And 3 hours selected from

- JOUR 3310 - Feature Writing
- JOUR 4321 - Opinion Writing
- JOUR 4350 - Sports Journalism

Visual journalism, 12 hours

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3700 - Fundamentals of Photojournalism
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4730 - Advanced Photojournalism Portfolio

Critical thinking, 3 hours

- JOUR 4250 - Race, Gender and the Media: A Methods Approach

Professional application, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4810 - News or Sports Practicum

Law and ethics, 3 hours

- JOUR 4620 - Mass Communication Law and Ethics

Capstone, 3 hours

- JOUR 4999 - News Capstone

6 additional hours

6 additional hours of JOUR or ADVG coursework. Below is a list of recommended courses.

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 1100 - Applied Design for Advertising and Public Relations
- JOUR 2300 - Principles of News
- JOUR 3260 - Web Design for Journalism
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3330 - Mobile Journalism
- JOUR 3340 - Digital Media for Journalists
- JOUR 3343 - Visual News Storytelling
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4220 - Business Journalism
- JOUR 4240 - Comparative International Media Systems
- JOUR 4270 - Strategic Social Media
- JOUR 4280 - Media Management
- JOUR 4290 - Media Innovation Lab
- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web
- JOUR 4355 - Sport Media Relations
- JOUR 4820 - History of American Media
- JOUR 4850 - Magazine Production

Minor

An 18-hour minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in journalism are required to maintain a 2.0 cumulative UNT GPA to enroll in journalism courses and have a 2.5 GPA in JOUR and ADVG courses used in the major to graduate.

a. A grade of C or higher is required for all journalism courses to be applied toward the major/minor degree requirements.

b. No more than 12 semester hours of journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 semester credit hours or more, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
JOUR 1210 - Mass Communication and Society	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option A core	3 hours	Component Area Option B core	3 hours
Political Science core	3 hours	Political Science core	3 hours
JOUR Foreign Language-elementary	3 hours	JOUR Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
JOUR 2310 - Introduction to Media Writing	3 hours	JOUR 3700 - Fundamentals of Photojournalism	3 hours
JOUR 3300 - Introduction to Visual Communication for News	3 hours	American History core	3 hours
American History core	3 hours	Life and Physical Sciences core	3 hours
Creative Arts core	3 hours	Writing option	3 hours
Life and Physical Sciences core	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JOUR 3322 - Copyediting	3 hours	JOUR 4410 - Reporting of Public Affairs	3 hours
Language, Philosophy and Culture core*	3 hours	JOUR 4730 - Advanced Photojournalism Portfolio	3 hours
Advanced Social Science option	3 hours	Advanced Social Science option	3 hours
Advanced Social Science option	3 hours	Advanced writing option	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	JOUR 4620 - Mass Communication Law and Ethics	3 hours
JOUR 4720 - Multimedia Storytelling for News	3 hours	JOUR 4999 - News Capstone	3 hours
Required elective option	3 hours	Professional Internship or Practicum	3 hours
Minor outside journalism	3 hours	Required elective option	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

*Also used to satisfy one of the Advanced Social Science option courses.

Journalism with a concentration in Public Relations, BA

A concentration in public relations from the Mayborn School of Journalism emphasizes public relations. You will graduate with competitive skills of persuasion gained from extensive hands-on experience working in state-of-the-art technology labs and with different media.

Program requirements

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the Mayborn School of Journalism requirements.

Major requirements

49 semester hours in public relations. Check catalog for prerequisites before enrolling in any course.

Journalism foundation requirements

The following requirements are prerequisites for all advanced journalism courses.

1. Complete the following with a 2.0 cumulative UNT GPA:
   - JOUR 1210 - Mass Communication and Society
   - JOUR 2310 - Introduction to Media Writing
   - JOUR 4250 - Race, Gender and the Media: A Methods Approach
2. The journalism math requirement for all concentrations:
   - MATH 1680 - Elementary Probability and Statistics
3. Complete the following with a grade of C or better:
   - ENGL 1310 - First-Year Writing I
   - ENGL 1320 - First-Year Writing II

Public Relations concentration

49 semester hours in journalism.

Foundation courses, 6 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing

Upper-level course requirements

Writing, 9 hours

- JOUR 3322 - Copyediting
- JOUR 3420 - Public Relations Writing
- JOUR 4460 - Public Relations Communication

Visual communication, 6 hours

- ADVG 1100 - Applied Design for Advertising and Public Relations
- JOUR 3300 - Introduction to Visual Communication for News

Critical thinking, 6 hours

- JOUR 2400 - Fundamentals of Public Relations Practices
- JOUR 4620 - Mass Communication Law and Ethics

Audience analysis, 3 hours

- JOUR 3200 - Mass Communication Research Methods

Professional application, 6 hours

- JOUR 4270 - Strategic Social Media

And 3 hours selected from

- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4440 - Public Relations Case Studies

Internship/practicum, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4805 - Agency PR Practicum
- ADVG 4815 - SWOOP Agency Practicum

Campaigns Capstone, 3 hours

- JOUR 4480 - Public Relations Campaigns

9 additional hours

9 additional hours of JOUR or ADVG coursework. Below is a list of recommended courses:

- JOUR 2300 - Principles of News
- ADVG 3500 - Advertising Media Buying and Planning
- ADVG 3200 - Advertising Account Management
- JOUR 3260 - Web Design for Journalism
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 3450 - Public Relations Practices for Business
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4290 - Media Innovation Lab
- JOUR 4350 - Sports Journalism
- JOUR 4355 - Sport Media Relations
- JOUR 4520 - Advertising and Public Relations Study Abroad
- JOUR 4820 - History of American Media

Other course requirements

- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors

Minor

An 18 hour minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in journalism are required to maintain a 2.0 cumulative UNT GPA to enroll in journalism courses and have a 2.5 GPA in JOUR and ADVG courses used in the major to graduate.

a. A grade of C or higher is required for all journalism courses to be applied toward the major/minor degree requirements.

b. No more than 12 semester hours of journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 semester credit hours or more, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
JOUR 1210 - Mass Communication and Society	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Language, Philosophy and Culture core*	3 hours
Political Science core	3 hours	Political Science core	3 hours
JOUR Foreign Language-elementary	3 hours	JOUR Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
JOUR 2310 - Introduction to Media Writing	3 hours	JOUR 2400 - Fundamentals of Public Relations Practices	3 hours
ADVG 1100 - Applied Design for Advertising and Public Relations	3 hours	JOUR 3300 - Introduction to Visual Communication for News	3 hours
American History core	3 hours	American History core	3 hours
Component Area Option A core**	3 hours	Life and Physical Sciences core	3 hours
Life and Physical Sciences core	3 hours	Required elective option	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JOUR 3200 - Mass Communication Research Methods	3 hours	JOUR 3410 - Public Relations for Non-Profits	3 hours
JOUR 3322 - Copyediting	3 hours	JOUR 3420 - Public Relations Writing	3 hours
MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors	3 hours	Advanced Social Science/Marketing^	3 hours
Required elective option	3 hours	Required elective option	3 hours
Minor Course	3 hours	Minor Course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	JOUR 4270 - Strategic Social Media	3 hours
JOUR 4460 - Public Relations Communication	3 hours	JOUR 4480 - Public Relations Campaigns	3 hours
JOUR 4620 - Mass Communication Law and Ethics	3 hours	Minor Course	3 hours
Advanced Social Science/Marketing	3 hours	Minor Course	3 hours
Minor Course	3 hours	Professional Internship or Practicum	1 hour
		Elective	2 hours
Total	15 hours	Total	15 hours

Notes

* Also used to satisfy one of the Advanced Social Science option courses.

** Also used to satisfy one of the required minor courses.

^ Also used to satisfy Component Area Option B.

Journalism with a concentration in Sports Journalism and Communications, BA

Students interested in careers in sports media—including working for traditional broadcast and print outlets, online media, or communications roles for teams or conferences—enroll in the school's sports media concentration. Students will learn to write, create visuals, craft messaging and effectively communicate while focusing specifically on sports content.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the Mayborn School of Journalism Degree Requirements.

Major requirements

46 semester hours in sports journalism and communications. Check catalog for prerequisites before enrolling in any advanced course.

Journalism foundation requirements

The following requirements are prerequisites for all advanced journalism courses.

1. Complete the following with a 2.0 cumulative UNT GPA:

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing
- JOUR 4250 - Race, Gender and the Media: A Methods Approach

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. Complete the following with a grade of C or better:

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II

Sports journalism and communications concentration

46 semester hours in journalism

Foundation courses, 6 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing

Writing and reporting, 3 hours

Selected from:

- JOUR 3321 - News Reporting and Writing
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3420 - Public Relations Writing

Critical thinking, 3 hours

- JOUR 4250 - Race, Gender and the Media: A Methods Approach

Reputation management, 3 hours

- JOUR 3430 - Crisis Communication

Visual journalism, 9 hours

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3343 - Visual News Storytelling
- JOUR 3340 - Digital Media for Journalists

  or
- JOUR 3700 - Fundamentals of Photojournalism

Sports journalism, 9 hours

- JOUR 4350 - Sports Journalism
- JOUR 4355 - Sport Media Relations
- JOUR 4360 - Audio and Video Sports Journalism

Law and ethics, 3 hours

- JOUR 4620 - Mass Communication Law and Ethics

Courses from outside units, 6 hours

Selected from:

- RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations
- RESM 4250 - Marketing in Recreation, Event, and Sport Organizations
- SENM 3500 - Sport in the Global Marketplace
- SENM 4240 - Corporate Partnerships in the Sport Entertainment industry
- SENM 4325 - Fan Engagement Strategies in the Sport Entertainment Industry
- SOCI 2050 - Sociology of Sport

Professional application, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4810 - News or Sports Practicum

Capstone, 3 hours

- JOUR 4999 - News Capstone

Electives, 6 hours

6 additional hours of JOUR or ADVG coursework or EDEM 3510 or RESM 3050 or RESM 4340. Below is a list of recommended courses:

- EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- JOUR 3220 - Professional Practice Studies
- JOUR 3310 - Feature Writing
- JOUR 3450 - Public Relations Practices for Business
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4240 - Comparative International Media Systems
- JOUR 4270 - Strategic Social Media
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4820 - History of American Media
- RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations
- RESM 4340 - Event Production in the Recreation, Event and Sport Organizations

Minor

An 18-hour minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in journalism are required to maintain a 2.0 cumulative UNT GPA to enroll in journalism courses and have a 2.5 GPA in JOUR and ADVG courses used in the major to graduate.

a. A grade of C or higher is required for all journalism courses to be applied toward the major/minor degree requirements.

b. No more than 12 semester hours of journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 semester credit hours or more, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Journalism with a concentration in Video, Broadcast and Multimedia, BA

Students interested in careers in broadcast media—such as broadcast news reporters, writers and producers—enroll in the school's broadcast and digital journalism concentration. You will learn to cover a news "beat," shoot video and stills, and edit using non-linear editing systems. You also learn to appear on camera, to do live reporting and anchoring, and to produce content for on air and online, including newscasts and webcasts.

Program requirements

Degree Requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the Mayborn School of Journalism requirements.

Major requirements

46 semester hours in journalism in video, broadcast and multimedia journalism. Check catalog for prerequisites before enrolling in any advanced course.

Journalism foundation requirements

The following requirements are prerequisites for all advanced journalism courses.

1. Complete the following with a 2.0 cumulative UNT GPA:

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing
- JOUR 4250 -Race, Gender and the Media: A Methods Approach

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. Complete the following with a grade of C or better:

- ENGL 1310 - First-Year Writing I or TECM 1700 - Introduction to Professional, Science and Technical Writing
- ENGL 1320 - First-Year Writing II or TECM 2700 - Technical Writing

Video, Broadcast and Multimedia Journalism concentration

46 semester hours in journalism.

Foundation courses, 6 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing

Writing/reporting/editing, 6 hours

- JOUR 3315 - Video News Research and Reporting
- JOUR 3323 - News Writing for Broadcast and Web

Advanced writing/reporting/editing, 6 hours

Selected from approved sections of the following courses:

- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web
- JOUR 4353 - Audio and Video Long Form Storytelling
- JOUR 4360 - Audio and Video Sports Journalism

Visual journalism, 9 hours

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3340 - Digital Media for Journalists
- JOUR 3343 - Visual News Storytelling

Critical thinking, 3 hours

- JOUR 4250 - Race, Gender and the Media: A Methods Approach

Professional application, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4810 - News or Sports Practicum

Law and ethics, 3 hours

- JOUR 4620 - Mass Communication Law and Ethics

Capstone, 3 hours

- JOUR 4999 - News Capstone

9 additional hours

9 additional hours of JOUR or ADVG coursework. Below is a list of recommended courses:

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 1100 - Applied Design for Advertising and Public Relations
- JOUR 2300 - Principles of News
- JOUR 3260 - Web Design for Journalism
- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 3310 - Feature Writing

- JOUR 3321 - News Reporting and Writing
- JOUR 3330 - Mobile Journalism
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 3700 - Fundamentals of Photojournalism
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4220 - Business Journalism
- JOUR 4240 - Comparative International Media Systems
- JOUR 4270 - Strategic Social Media
- JOUR 4280 - Media Management
- JOUR 4290 - Media Innovation Lab
- JOUR 4321 - Opinion Writing
- JOUR 4350 - Sports Journalism
- JOUR 4355 - Sport Media Relations
- JOUR 4530 - News Study Abroad
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4820 - History of American Media
- JOUR 4850 - Magazine Production
- Students may take an additional 2 hours in either the practicum or internship courses.

Minor

An 18-hour minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the Mayborn School of Journalism.

Other requirements

Students majoring in journalism are required to maintain a 2.0 cumulative UNT GPA to enroll in journalism courses and have a 2.5 GPA in JOUR and ADVG courses used in the major to graduate.

a. A grade of C or higher is required for all journalism courses to be applied toward the major/minor degree requirements.

b. No more than 12 semester hours of journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 semester credit hours or more, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
JOUR 1210 - Mass Communication and Society	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Component Area Option A core	3 hours	Component Area Option B core	3 hours
Core Communication Option	3 hours	Core Communication Option	3 hours
JOUR Foreign Language-elementary	3 hours	JOUR Foreign Language-elementary	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
JOUR 2310 - Introduction to Media Writing	3 hours	JOUR 3300 - Introduction to Visual Communication for News	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Language, Philosophy and Culture core*	3 hours	Minor outside journalism	3 hours
Life and Physical Sciences core	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
JOUR 3323 - News Writing for Broadcast and Web	3 hours	JOUR 3315 - Video News Research and Reporting	3 hours
JOUR 3343 - Visual News Storytelling	3 hours	JOUR 3340 - Digital Media for Journalists	3 hours
Advanced Social Science option	3 hours	Required elective option	3 hours
Advanced Social Science option	3 hours	Advanced Social Science option	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	JOUR 4999 - News Capstone	3 hours
JOUR 4620 - Mass Communication Law and Ethics	3 hours	Professional Internship or Practicum	1 hour
Advanced writing option	3 hours	Advanced writing option	3 hours
Required elective option	3 hours	Required elective option	3 hours
Minor outside journalism	3 hours	Minor outside journalism	3 hours
		Elective	2 hours
Total	15 hours	Total	15 hours

*Also used to satisfy one of the Advanced Social Science option courses.

Grad Track Options

Journalism, BA with grad track option leading to Journalism, MA

Requirements

To be eligible for the journalism grad track, students must:

1. Have successfully completed 75 or more undergraduate credit hours and be classified as a junior.
2. Have a minimum cumulative GPA of 3.5
3. Have successfully completed all of the following Journalism courses:

    a. Video, Broadcast and Multimedia students (4 courses): JOUR 2310, JOUR 3300, JOUR 3315 and JOUR 3323.

    b. Digital, Photojournalism students (4 courses): JOUR 2310, JOUR 3300, JOUR 3321 and JOUR 3322.

    c. Public Relations students (3 courses): ADVG 1100, JOUR 2310 and JOUR 3322.

Once admitted to the pathway program, undergraduate students can take up to 12 hours from the following classes after they have completed 90 hours of undergraduate study. Their grad track coursework must be determined in consultation with the director of graduate studies/graduate academic advisor.

A grade of B or better is required in all classes taken for credit in the pathway for the course to count for the master's degree. Once the BA is completed, these courses may be transferred to the MA degree.

Undergraduate students who have been accepted to a grad track option must complete all of their bachelor's degree requirements and graduate within 12 months of the first day of the semester in which they start taking graduate courses. They also must submit a portfolio and be accepted officially into the Mayborn Graduate Institute of Journalism before completing their grad track to start their MA program. If they fail, their enrollment in additional graduate-level course work beyond 12 hours will be suspended. The MA program requires students to write a master's thesis.

Students should try to take as many of the following four core required courses as they can during their grad track program:

- JOUR 5040 - Media Studies and Theories
- JOUR 5250 - Quantitative Research
- JOUR 5260 - Qualitative Research
- JOUR 5310 - Media Ethics

Depending on their concentration and degree plan, grad track students are allowed to take some of the following elective courses:

- JOUR 5100 - Case Problems in Public Relations
- JOUR 5130 - International Advertising and Public Relations Study Abroad
- JOUR 5140 - Strategic Persuasion and Media Effects
- JOUR 5150 - International Mass Communication
- JOUR 5180 - Advanced Public Relations Campaigns
- JOUR 5210 - Race, Gender and the Media: A Methods Approach
- JOUR 5220 - Advanced Business Journalism
- JOUR 5330 - Strategic Social Media
- JOUR 5350 - Seminar in Journalism and Mass Communication
- JOUR 5700 - Advanced Feature Writing
- JOUR 5760 - International News and Media Study Abroad

All remaining courses for Journalism with a concentration in Digital Journalism, BA, Journalism with a concentration in Video, Broadcast and Multimedia, BA, Journalism with a concentration in Photojournalism, BA or Journalism with a concentration in Public Relations, BA must be completed.

Minors

Advertising minor

Students who wish to minor in advertising will take 18 hours with at least 9 hours of upper-level classes. All students are required to take ADVG 1000 plus 2 additional lower-level advertising foundational courses listed in the Advertising and Brand Strategy degree.

Students will choose 9 advanced hours from the advertising Professional Track courses listed in the Advertising and Brand Strategy major.

To receive a minor in advertising, a grade of C or better must be earned in each advertising course completed in residence or transferred to UNT.

Nine hours of upper-level advertising courses must be taken in residence at UNT.

Prerequisites for upper level classes must be completed.

Required Course, 3 hours

- ADVG 1000 - Principles of Advertising and Brand Strategy

6 hours from

- ADVG 1100 - Applied Design for Advertising and Public Relations

- ADVG 2000 - Digital Advertising Tools and Analytics
- ADVG 2100 - Inclusive Advertising

9 hours from

- ADVG 3000 - Copywriting for Brands
- ADVG 3010 - People-Centered Copywriting
- ADVG 3100 - Advertising Art Direction for Brands
- ADVG 3110 - Representation Through Advertising Art Direction
- ADVG 3120 - Advertising Video Production
- ADVG 3200 - Advertising Account Management
- ADVG 3220 - Social Media Client Partnerships
- ADVG 3300 - Advertising Strategy and Insights
- ADVG 3310 - Advertising Research and Campaign Evaluation
- ADVG 3400 - Experiential Advertising and Brand Activations
- ADVG 3510 - Programmatic and Tailored Advertising
- ADVG 4000 - Advanced Advertising Art Direction Workshop

Journalism minor

Students who wish to minor in journalism will take 18 hours with at least 9 hours of upper-level classes. All students are required to take 3 hours of JOUR at the 1000 or 2000 level, 9 hours at the advanced level, and 6 hours at any level. (See the Frank W. and Sue Mayborn School of Journalism for a list of selected courses and prerequisites.)

To receive a minor in journalism, a grade of C or better must be earned in each journalism course completed in residence or transferred to UNT.

Nine hours of upper-level journalism courses must be taken in residence at UNT.

Prerequisites for upper-level classes must be completed.

Secondary Teacher Certification

Journalism teacher certification

The Frank W. and Sue Mayborn School of Journalism encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Office of Student Advising in SYC, Room 205, can assist students with specific requirements for teacher certification in journalism. Upon completion of this program, students will be prepared to sit for the certification examinations in journalism.

Requirements

Journalism required courses:

- ADVG 1100 - Applied Design for Advertising and Public Relations
- JOUR 1210 - Mass Communication and Society
- JOUR 2310 - Introduction to Media Writing
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3321 - News Reporting and Writing
- JOUR 3322 - Copyediting
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3340 - Digital Media for Journalists
- JOUR 4100 - Supervising School Media
- JOUR 4620 - Mass Communication Law and Ethics
- JOUR 4820 - History of American Media
- One course from JOUR 3700 or JOUR 4850
- One hour from professional application courses (either JOUR 4800 or JOUR 4810)

Professional education requirements, 21 hours

Students must also meet all GPA requirements to apply for state certification. In order to progress through the required education courses, the student must make application to the certification program in the College of Education's Educator Preparation Office in Matthews Hall, Room 218.

All state certification requirements and information on required examinations are available on the web site of the State Board for Education Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4060 - Content Area Reading
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School
- EDCI 4840 - Instructional Strategies and Classroom Management

Other course requirements

- ENGL 1310 - First-Year Writing I
- ENGL 1320 - First-Year Writing II
- MATH 1680 - Elementary Probability and Statistics

Other requirements

Students majoring in Journalism with Teacher Certification are required to have a 2.5 GPA in the major in order to graduate. No more than 12 semester hours of Journalism credit will be accepted from a transfer student who is entering with fewer than 75 semester credit hours. For students transferring with 75 or more semester credit hours, a maximum of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.

A grade of C or higher is required for all journalism courses to be applied toward major/minor degree requirements.

Students are also required to complete the Mayborn School of Journalism Degree Requirements and the General University Requirements, including the University Core Curriculum.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
JOUR 1210 - Mass Communication and Society	3 hours	Life and Physical Sciences core	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	Political Science core	3 hours
Political Science core	3 hours	CLASS Foreign Language-elementary	3 hours
CLASS Foreign Language-elementary	3 hours	Component Area Option A Core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
JOUR 2310 - Introduction to Media Writing	3 hours	EDCI 3800 - Professional Issues in Teaching	3 hours
American History core	3 hours	JOUR 3321 - News Reporting and Writing	3 hours
JOUR 3300 - Introduction to Visual Communication for News	3 hours	JOUR 3322 - Copyediting	3 hours
Life and Physical Sciences core	3 hours	American History core	3 hours
Advanced Social Science/Marketing	3 hours	Component Area Option B Core	3 hours
Elective	3 hours	Elective	2 hours
Total	18 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
JOUR 3323 - News Writing for Broadcast and Web	3 hours	EDCI 3830 - Teaching/Learning Process and Evaluation	3 hours
EDCI 4070 - Teaching in a Multicultural Classroom	3 hours	JOUR 4100 - Supervising School Media	3 hours
JOUR 3340 - Digital Media for Journalists	3 hours	EDCI 4060 - Content Area Reading	3 hours
JOUR 4250 - Race, Gender and the Media: A Methods Approach	3 hours	JOUR 4820 - History of American Media	3 hours
Language, Philosophy and Culture core*	3 hours	JOUR 3700 - Fundamentals of Photojournalism	3 hours
ADVG 1100 - Applied Design for Advertising and Public Relations	3 hours	Advanced Social Science/Marketing	3 hours
Total	18 hours	Total	18 hours

* Also used to satisfy one of the Advanced Social Science option courses

Year 4

Semester 1		Semester 2	
JOUR 4620 - Mass Communication Law and Ethics	3 hours	EDCI 4108 - Student Teaching in the Secondary School	3 hours
EDCI 4840 - Instructional Strategies and Classroom Management	3 hours	EDCI 4118 - Student Teaching in the Secondary School	3 hours
JOUR 4800 - Professional Internship or JOUR 4810 - News or Sports Practicum	1 hour		
Advanced Social Science/Marketing	3 hours		
Creative Arts Core	3 hours		
Total	13 hours	Total	6 hours

Media Entrepreneurship and Innovation certificate (not currently accepting students)

This certificate is not currently accepting students.

The Media Entrepreneurship and Innovation certificate prepares students for the rapidly changing media communications environment. Perhaps more importantly, it gives them the tools to create jobs or startup as the industry continually evolves.

A grade of B or better is required in all coursework counted towards the certificate.

Requirements, 18 hours

Students must have successfully taken JOUR 3210X or ASTU 3030 or JOUR 3300. A grade of B or better is required in every course counted toward the certificate.

Required courses, 6 hours

- JOUR 3270 - Media Entrepreneurship and Innovation
- JOUR 4290 - Media Innovation Lab (capstone class to be taken as last class)

6-9 hours

Students select 6-9 hours from:

- JOUR 3250 - Game Design for Journalism
- JOUR 3260 - Web Design for Journalism
- JOUR 4215 - Media Performance for News and Public Relations
- JOUR 4270 - Strategic Social Media

3-6 hours

Courses taken outside the unit with school approval.

Sports Media certificate

The Frank W. and Sue Mayborn School of Journalism's certificate in sports media is designed to enhance writing, reporting, broadcast and multimedia skills for careers in the field of sports journalism.

Requirements

Students must have journalism major status. A grade of at least B is required in every course counted toward the certificate.

Required courses, 16 hours

3 hours

Selected from:

- JOUR 3321 - News Reporting and Writing
- JOUR 3322 - Copyediting
- JOUR 3323 - News Writing for Broadcast and Web

3 hours

Selected from:

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 2400 - Fundamentals of Public Relations Practices

6 hours from

- SOCI 2050 - Sociology of Sport
- JOUR 4350 - Sports Journalism

  or
- JOUR 4355 - Sport Media Relations

Plus one course

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4810 - News or Sports Practicum

Elective, 3 hours

Selected from:

- JOUR 3340 - Digital Media for Journalists
- JOUR 4270 - Strategic Social Media

School of Merchandising and Hospitality Management

The School of Merchandising and Hospitality Management is housed within the G. Brint Ryan College of Business.

Main Office
Chilton Hall, Room 331

Mailing address:
1155 Union Circle #311100
Denton, TX 76203-5017
940-565-2436
Fax: 940-565-4348
Web site: cmht.unt.edu

Faculty

The mission of the School of Merchandising and Hospitality Management is to transform learning, research and engagement for a global experience economy. Our vision is to lead the paradigm shift in learning and research of digitally networked, sustainable and socially responsible products and services for empowered consumers in the global economy.

Academic advising

The advising staff answers questions concerning degree audits, application of transfer credit, general academic requirements, policies and procedures and application for graduation, and assists students in the selection and sequencing of courses.

Degree requirements and the University Core Curriculum

Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree and core requirements should consult their academic advisor.

Bachelor of Science

The School of Merchandising and Hospitality Management offers the Bachelor of Science degree with majors in consumer insight, digital business and e-commerce, event design and experience management, hospitality management, and merchandising (with concentrations in fashion merchandising or furniture and décor). The college also offers teacher certifications in Family and Consumer Sciences and in Hospitality, Nutrition and Food Science.

Degree audit

Each student should have a degree audit prepared by the School of Merchandising and Hospitality Management advising office. This degree audit should be made by the end of the freshman year. Transfer students should have degree audits prepared during their first term/semester at UNT.

Minors

The minor requires at least 18 hours, including 6 advanced. To receive a minor in any of the Merchandising and Digital Retailing or Hospitality and Tourism Management programs, a grade of C or above must be earned in each School of Merchandising and Hospitality Management course completed in residence or transferred to UNT.

Scholarships

The School of Merchandising and Hospitality Management offers a number of endowed scholarships to undergraduate and graduate students. Information about SMHM academic scholarships may be obtained at cmht.unt.edu/cmht-competitive-scholarship.

A minimum GPA of 3.0 is required for academic awards, unless otherwise noted.

Accreditation

The hospitality management program is accredited by the Accreditation Commission for Programs in Hospitality Administration (ACPHA) (P.O. Box 400, Oxford, MD 21654; 410-226-5527).

The merchandising program is accredited by the Textiles Apparel Programs Accreditation Commission (TAPAC) (P.O. Box 353, Dadeville, AL 36853; (334) 524-6821).

Department of Hospitality, Event and Tourism Management

Main Office
Chilton Hall, Room 331

Mailing address:
1155 Union Circle #311100
Denton, TX 76203-5017
940-565-2436
Fax: 940-565-4348
Web site: www.cmht.unt.edu

Mark Traynor, Department Chair

Faculty

Mission

We educate the next generation of hospitality and tourism leaders who strive for excellence and embrace our diversity in a caring, innovative, and empowering community.

Accreditation

The hospitality management program is accredited by the Accreditation Commission for Programs in Hospitality Administration (ACPHA) (P.O. Box 400, Oxford, MD 21654; 410-226-5527).

Majors

Event Design and Experience Management, BS

The Bachelor of Science in event design and experience management will not only help graduates design, plan and execute impactful events, but it will also develop leaders. The BS in event design and experience management is intended for students seeking careers as event and meeting professionals under titles such as event or meeting coordinator, manager, designer, architect or producer. The in-depth course of study examines the interrelated industry components of meetings, conventions, trade shows and special events (including weddings). Students will have the opportunity to gain practical experience and create unique events in the new UNT CoLab located in downtown Denton, TX.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the Department of Hospitality, Event and Tourism Management requirements.

Major requirements

CMHT core, 9 hours

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management

EDEM specialization, 30 hours

- EDEM 1600 - Introduction to Global Event Management
- EDEM 2510 - Exhibition and Convention Management
- EDEM 2700 - Event Sales Strategies
- HMGT 3200 - Hospitality Industry Law
- EDEM 4500 - Strategic Event Design

- EDEM 3240 - Event Service Essentials

  or

- EDEM 4400 - Event Design Lab

- EDEM 3500 - Event Catering Operations
- EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- EDEM 4200 - Sustainability in the Event Industry

- EDEM 3210 - Intellectual Property and Sports Entertainment

  or

- EDEM 3700 - Modern Wedding Planning

Plus 24 hours from

- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- EDEM 3600 - Cruise Events Management
- EDEM 3700 - Modern Wedding Planning
- NUTR 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2480 - Hospitality Accounting II - Managerial

- HMGT 2800 - Foundations of International Travel and Tourism

  or

- HMGT 2810 - Introduction to International Sustainable Tourism

- HMGT 2920 - Analytical Tools for Hospitality and Tourism
- HMGT 3260 - Resort and Club Management
- HMGT 3470 - Global Kitchen: A Culinary Journey
- HMGT 3700 - Hotel Operations
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4001 - Chicago Study Tour
- HMGT 4150 - Casino Management

- HMGT 4210 - Hospitality Cost Controls

  or

- HMGT 4490 - Hospitality Revenue Management

- HMGT 4300 - Survey of Beverages in the Hospitality Industry
- HMGT 4480 - Hospitality Industry Finance
- HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design
- THEA 1030 - Lighting and Sound I
- THEA 1700 - Theatrical Design I
- THEA 3701 - Scenic Design
- THEA 4190 - Sound Production and Design for the Theatre

- CMHT 3450 - Effective Leadership Communication
- CMHT 4800 - Seminar in Merchandising, Hospitality and Tourism
- HMGT 3300 - Hospitality Industry Marketing and Sales
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements.

- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- EDEM 3600 - Cruise Events Management
- NUTR 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2480 - Hospitality Accounting II - Managerial
- HMGT 2800 - Foundations of International Travel and Tourism
- HMGT 2810 - Introduction to International Sustainable Tourism
- HMGT 3260 - Resort and Club Management
- HMGT 3470 - Global Kitchen: A Culinary Journey
- HMGT 3700 - Hotel Operations
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4001 - Chicago Study Tour
- HMGT 4150 - Casino Management
- HMGT 4210 - Hospitality Cost Controls
- HMGT 4300 - Survey of Beverages in the Hospitality Industry
- HMGT 4490 - Hospitality Revenue Management
- HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design

Other requirements

- It is required that students entering the School of Merchandising and Hospitality Management have a minimum grade point average of at least 2.0 on all courses completed at UNT.
- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE.
- A maximum of 24 hours of WECM credit may be used for the degree.

Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:

1. A minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE.
2. A minimum of 2.0 grade point average in all courses completed at UNT.
3. A minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
EDEM 1600 - Introduction to Global Event Management	3 hours	EDEM 2510 - Exhibition and Convention Management	3 hours
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Component Area Option core	3 hours
Mathematics core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HMGT 3200 - Hospitality Industry Law	3 hours	EDEM 3210 - Intellectual Property and Sports Entertainment	3 hours
Government/Political Science core	3 hours	Component Area Option A core	3 hours
Language, Philosophy and Culture core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	EDEM Major Elective	3 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
EDEM 3500 - Event Catering Operations	3 hours	CMHT 3950 - Creating Consumer Experiences	3 hours
EDEM 2700 - Event Sales Strategies	3 hours	EDEM 3510 - Entertainment and Experiences in Hospitality and Events	3 hours
EDEM Major Elective	3 hours	EDEM Major Elective	3 hours
EDEM Major Elective	3 hours	EDEM Major Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
EDEM 4500 - Strategic Event Design	3 hours	CMHT 4750 - Workforce Dynamics in a Global Business Environment	3 hours
EDEM 4200 - Sustainability in the Event Industry	3 hours	CMHT 4790 - Internship in Merchandising and Hospitality Management	3 hours
EDEM 4400 - Event Design Lab	3 hours	EDEM Major Elective	3 hours
EDEM Major Elective	3 hours	EDEM Major Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Hospitality Management, BS

The Bachelor of Science with a major in hospitality management gives you a solid academic education combined with extensive training in hospitality business skills, using the best modern technology. You can also gain insight into the industry through field trips, attending special lectures and meeting executives in our executive-in-residence program.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science.

Hours required and general/school requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the School of Merchandising and Hospitality Management requirements.

Major requirements

CMHT core, 9 hours

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management (Students are required to complete 500 documented pre-internship work hours in the hospitality industry, plus 300 internship work hours, for a total of 800 hours. See course description for details.)

Hospitality management, 45 hours

A total of 45 hours including the following courses:

- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2800 - Foundations of International Travel and Tourism

  or
- HMGT 2810 - Introduction to International Sustainable Tourism
- HMGT 3200 - Hospitality Industry Law
- HMGT 3251 - Restaurant Operations
- HMGT 3260 - Resort and Club Management
- HMGT 3300 - Hospitality Industry Marketing and Sales
- HMGT 3700 - Hotel Operations
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent
- HMGT 4210 - Hospitality Cost Controls

  or
- HMGT 4490 - Hospitality Revenue Management
- HMGT 4480 - Hospitality Industry Finance
- HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design
- HMGT 4860 - Hospitality Business Strategies

Plus 9 hours selected from

- CMHT 2560 - Food Retailing: Issues and Trends
- CMHT 3450 - Effective Leadership Communication
- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- CMHT 4800 - Seminar in Merchandising, Hospitality and Tourism
- DBUS 3090 - Digital Channel Strategies

- EDEM 3240 - Event Service Essentials
- NUTR 1450 - Principles of Nutrition
- HMGT 4150 - Casino Management
- HMGT 3470 - Global Kitchen: A Culinary Journey
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4001 - Chicago Study Tour
- HMGT 4300 - Survey of Beverages in the Hospitality Industry
- HMGT 4490 - Hospitality Revenue Management
- Other relevant lower- and upper-division courses as approved
- HMGT 2850 - Introduction to Agritourism
- HMGT 2470 - Introduction to Professional Baking
- HMGT 2480 - Hospitality Accounting II - Managerial
- NUTR 3460 - Healthy Sustainable Meals
- NUTR 3560 - Life Cycle Nutrition
- NUTR 3660 - Community Nutrition

Other course requirements:

NUTR 2460, Nutrition Science, is recommended (satisfies a portion of the Life and Physical Sciences requirement).

Minor requirements

None.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements.

Other requirements

A maximum of 24 hours of WECM credit may be used for the degree.

GPA requirements

- It is required that students entering the School of Merchandising and Hospitality Management have a minimum grade point average of at least 2.0 on all courses completed at UNT.
- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, ICON, and MDSE.
- Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:
  1. A minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE courses.
  2. A minimum of 2.0 grade point average in all courses completed at UNT.
  3. A minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
HMGT 1500 - Orientation to the Hospitality Industry	3 hours	NUTR 1450 - Principles of Nutrition	3 hours
American History core	3 hours	HMGT 1470 - Introduction to Professional Food Preparation	3 hours
Communication core	3 hours	NUTR 2460 - Introduction to Nutrition Science	3 hours
Creative Arts core	3 hours	American History core	3 hours
Mathematics core	3 hours	Communication core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
HMGT 2280 - Hospitality Accounting I - Financial	3 hours	HMGT 3260 - Resort and Club Management	3 hours
Government/Political Science core	3 hours	Component Area Option A core	3 hours
Language, Philosophy and Culture core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Tourism Course for HMGT Major	3 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
HMGT 3200 - Hospitality Industry Law	3 hours	CMHT 3950 - Creating Consumer Experiences	3 hours
HMGT 3251 - Restaurant Operations	3 hours	HMGT 3300 - Hospitality Industry Marketing and Sales	3 hours
HMGT 3700 - Hotel Operations	3 hours	HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent	3 hours
HMGT Major Elective Course	3 hours	HMGT Analytical Major Course	3 hours
Elective	3 hours	HMGT Major Elective Course	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
HMGT 4480 - Hospitality Industry Finance	3 hours	CMHT 4750 - Workforce Dynamics in a Global Business Environment	3 hours
HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism	3 hours	CMHT 4790 - Internship in Merchandising and Hospitality Management	3 hours
HMGT 4820 - Facilities Planning, Equipment, Layout and Design	3 hours	HMGT 4860 - Hospitality Business Strategies	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Hospitality Management, BS (Hospitality, Nutrition and Food Science teacher certification)

The Bachelor of Science with a major in hospitality management gives you a solid academic education combined with extensive training in hospitality business skills, using the best modern technology. By getting your certification in hospitality, nutrition and food science, you will also be prepared to begin a career in teaching.

Degree requirements

The department offers the Bachelor of Science degree with a major in hospitality management leading to certification in hospitality, nutrition and food science (grades 8–12).

Hours required and general/college requirements

A minimum of 120–129 semester hours of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the School of Merchandising and Hospitality Management requirements, plus requirements for teacher certification as outlined by the College of Education.

Hospitality, nutrition and food science

57 hours, including:

- CMHT 2560 - Food Retailing: Issues and Trends
- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- NUTR 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 3251 - Restaurant Operations
- HMGT 3260 - Resort and Club Management
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4210 - Hospitality Cost Controls
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design
- 9 hours of electives

Other course requirements

- HDFS 1013 - Human Development
- HDFS 2033 - Parenting
- HDFS 4133 - Adolescence and Emerging Adulthood
- HDFS 4413 - Family Life Education

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Merchandising Hospitality and Tourism.

Other requirements

See Hospitality Management, BS for GPA requirements.

Admission to teacher education

Prior to enrolling in the first education courses, students must have:

- Completed a minimum of 60 semester hours, including the University Core Curriculum. (See “General University Requirements” in the Academics section of this catalog. Programs in teacher education require specific courses

contained in parts of the University Core Curriculum to satisfy particular degree requirements. Students should consult program advisors for best choices in the core.);

- A 2.75 UNT GPA;
- A 2.75 overall GPA (includes courses transferred to UNT, plus all courses taken at UNT);
- Passed the THEA test (with test scores of 240 reading; 230 math and 220 writing; contact the Student Advising Office in Matthews Hall, Room 105, for further information on the THEA requirement); and
- Formally applied and been admitted to Teacher Education through the College of Education Student Advising Office in Matthews Hall, Room 105.

Professional education requirements, 21 hours

Pedagogy, 12 hours

- EDCI 3800 - Professional Issues in Teaching
- EDCI 3830 - Teaching/Learning Process and Evaluation
- EDCI 4070 - Teaching in a Multicultural Classroom
- EDCI 4840 - Instructional Strategies and Classroom Management

Reading/English language arts, 3 hours

- EDCI 4060 - Content Area Reading

Internship (student teaching), 6 hours

- EDCI 4108 - Student Teaching in the Secondary School
- EDCI 4118 - Student Teaching in the Secondary School

Eligibility for teacher certification and endorsements

Teacher certification is a function of the State Board for Educator Certification. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by the agency. In order to receive recommendation for teacher certification through the University of North Texas, students must have:

- Successfully completed an approved teacher education program for the preparation of secondary teachers;
- Successfully completed student teaching, including attendance at appropriate seminars and passing a comprehensive teacher preparation examination; and
- Passed the content examination from the American Association of Family and Consumer Sciences.

Students completing course requirements for the Family and Consumer Sciences teacher certificate will be eligible to apply to the American Association of Family and Consumer Sciences for the Certified Family and Consumer Science credential.

Grad Track Options

Event Design and Experience Management, BS with grad track option leading to Hospitality Management, MS

The Department of Hospitality, Event and Tourism Management offers a grad track option for existing UNT undergraduate students majoring in Event Design and Experience Management.

Grad Track Pathways offers early provisional graduate admission for exceptional undergraduate students. Specific graduate courses are made available to selected students who may earn up to 9 graduate credit hours that apply toward first the bachelor's degree and then are transferred to the graduate degree associated with the courses. Acceptance into the graduate program is contingent upon student's acceptance into the Toulouse Graduate School.

Admission requirements

Students applying to the grad track option should be majors in the department's event design and experience management BS program. Students seeking admission to the grad track pathway in hospitality management will apply both to the program area and for conditional admission to the Toulouse Graduate School. An applicant must have successfully completed 75 or more credit hours of their bachelor's degree program with an overall GPA of at least 3.5 before applying.

Students seeking admission to the program should first speak to their assigned advisor at CMHT advising office.

Program requirements

- CMHT 5350 - Contemporary Issues and Trends in Merchandising and Hospitality Management (HMGT 3920 - Recent Developments in the Hospitality Industry)
- CMHT 5460 - Human Capital Development in Merchandising and Hospitality Management (CMHT 4750 - Workforce Dynamics in a Global Business Environment)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CMHT 5830 - Legal and Regulatory Aspects of Merchandising and Hospitality Management (HMGT 3200 - Hospitality Industry Law)
- HMGT 5280 - Hotel and Restaurant Operations: Theory and Analysis (HMGT 3700 - Hotel Operations)
- HMGT 5585 - SMART Destination (HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism)
- HMGT 5630 - Advanced Convention and Event Management (EDEM 3240 - Event Service Essentials)
- HMGT 5640 - Global Healthy Sustainable Foods (NUTR 3460 - Healthy Sustainable Meals)
- HMGT 5650 - Strategic Marketing of Events (EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- HTAN 5300 - Hospitality and Tourism Data Analytics or HTAN 5310 - Business Analytics in HETM (HMGT 4490 - Hospitality Revenue Management or HMGT 4210 - Hospitality Cost Controls)

All remaining courses for Event Design and Experience Management, BS must be completed.

Hospitality Management, BS with grad track option leading to Hospitality and Tourism Data Analytics, MS

The Department of Hospitality, Event, & Tourism Management offers a grad track option for existing UNT undergraduate students majoring in Hospitality Management.

Grad Track Pathways offers early provisional graduate admission for exceptional undergraduate students. Specific graduate courses are made available to selected students who may earn up to 9 graduate credit hours that apply toward first the bachelor's degree and then are transferred to the graduate degree associated with the courses. Acceptance into the graduate program is contingent upon student's acceptance into the Toulouse Graduate School.

Admission requirements

Students applying to the grad track option should be majors in the department's hospitality management BS program. Students seeking admission to the grad track pathway in hospitality management will apply both to the program area and for conditional admission to the

Toulouse Graduate School. An applicant must have successfully completed 75 or more credit hours of their bachelor's degree program with an overall GPA of at least 3.5 before applying.

Students seeking admission to the program should first speak to their assigned advisor at CMHT advising office.

Program requirements

- CMHT 5350 - Contemporary Issues and Trends in Merchandising and Hospitality Management (HMGT 3920 - Recent Developments in the Hospitality Industry)
- CMHT 5460 - Human Capital Development in Merchandising and Hospitality Management (CMHT 4750 - Workforce Dynamics in a Global Business Environment)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CHMT 5830 - Legal and Regulatory Aspects of Merchandising and Hospitality Management (HMGT 3200 - Hospitality Industry Law)
- HMGT 5280 - Hotel and Restaurant Operations: Theory and Analysis (HMGT 3700 - Hotel Operations)
- HMGT 5585 - SMART Destination (HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism)
- HMGT 5630 - Advanced Convention and Event Management (EDEM 3240 - Event Service Essentials)
- HMGT 5640 - Global Healthy Sustainable Foods (NUTR 3460 - Healthy Sustainable Meals)
- HMGT 5650 - Strategic Marketing of Events (EDEM 3510 - Entertainment and Experiences in Hospitality and Events)
- HTAN 5300 - Hospitality and Tourism Data Analytics or HTAN 5310 - Business Analytics in Hospitality, Event and Tourism (HMGT 4490 - Hospitality Revenue Management or HMGT 4210 - Hospitality Cost Controls)

All remaining courses for Hospitality Management, BS must be completed.

Hospitality Management, BS with grad track option leading to Hospitality Management, MS

The grad pathway leading toward an MS with a major in hospitality management offers students an opportunity to earn first a Bachelor of Science then a Master of Science degree in a shorter time period and at less cost. Exceptional students in the Department of Hospitality, Event and Tourism Management can obtain degrees in an expedited time frame. The grad pathway is intended for selected students as preparation to pursue career goals or for preparation to pursue a doctoral degree.

Admission requirements and program policies

Students meeting the admission criteria will be admitted to the hospitality management grad track pathway. The full-time faculty member with oversight responsibility will monitor each student's progress through unofficial transcripts and will meet at least once a semester with the student to review progress on the grad track pathway. Students will be advised each semester separately with the HTM Graduate Faculty Advisor and the HTM graduate faculty with oversite responsibility. The director of undergraduate academic advising will ensure that the student is on track to complete the bachelor's degree within one year after first enrolling in an associated graduate course. The program will be promoted through Preview and Orientation events, on the CMHT website, through CMHT Advising office and HTM faculty. A packet with criteria for admission and information about the program will be distributed to advisors, faculty and prospective qualified students.

Admission requirements

Students seeking admission to the grad track pathway in hospitality management will apply both to the program area and for conditional admission to the Toulouse Graduate School. An applicant must have successfully completed 75 or more credit hours of their bachelor's degree program with an overall GPA of at least 3.5 before applying.

Students conditionally admitted can begin enrolling in the grad track pathway courses after completing at least 90 credit hours of coursework towards their bachelor's degree program. Students must complete the bachelor's degree within one academic year of their first pathway course in order to have the graduate course credits transferred to their graduate plan of study. Grad tack pathway applicants must receive approval from their undergraduate advisor and the pathway graduate program from which they seek admission to ensure that the graduate pathway courses satisfy degree requirements for their bachelor's degree programs prior to admission to a grad track pathway.

Students seeking admission to the program should first speak to the HTM Graduate Faculty Advisor.

Program policies

Students conditionally admitted to the graduate school will start taking pathways courses after completion of at least 90 credit hours of course work toward the bachelor's degree program. Students must complete the bachelor's degree within one academic year of their first pathways course in order to have the graduate course credits transferred to their graduate plan of study.

Students who satisfy all requirements for the undergraduate degrees and who successfully complete the graduate courses required by the grad track pathway curriculum receive unconditional admission to the graduate degree program.

Grad track pathway applicants must receive approval from their undergraduate advisor and the graduate pathways program from which they seek admission to ensure that the graduate pathways courses satisfy degree requirements for the bachelor's degree programs prior to admission to a grad track pathway.

Program requirements

Students may select up to 9 hours from the following courses, which are all 3 credits.

- CMHT 5350 - Contemporary Issues and Trends in Merchandising and Hospitality Management (HMGT 3920 - Recent Developments in the Hospitality Industry)
- CMHT 5460 - Human Capital Development in Merchandising and Hospitality Management (CMHT 4750 - Workforce Dynamics in a Global Business Environment)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CMHT 5830 - Legal and Regulatory Aspects of Merchandising and Hospitality Management (HMGT 3200 - Hospitality Industry Law)
- HMGT 5280 - Hotel and Restaurant Operations: Theory and Analysis (HMGT 3700 - Hotel Operations)
- HMGT 5585 - SMART Destinations (HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism)
- HMGT 5590 - Hospitality and Tourism Data Analytics or HTAN 5310 - Business Analytics in Hospitality, Event and Tourism (HMGT 4490 - Hospitality Revenue Management Or HMGT 4210 - Hospitality Cost Controls)
- HMGT 5630 - Advanced Convention and Event Management (EDEM 3240 - Event Service Essentials)
- HMGT 5640 - Global Health Sustainable Foods (NUTR 3460 - Healthy Sustainable Meals)
- HMGT 5650 - Strategic Marketing of Events (EDEM 3510 - Entertainment and Experiences in Hospitality and Events)

All remaining courses for Hospitality Management, BS must be completed.

Enology and brewing minor

The Enology and Brewing minor provides a multidisciplinary education in the biological principles underlying wine and beer production and distribution, including hands-on experiential learning about viticulture and fermentation. With the support of local industry partners, this program provides the knowledge base for problem-solving and decision-making in commercial beverage production and management.

Required courses, 18 hours

- HMGT 3900 - Principles of Viticulture
- HMGT 3910 - Principles of Enology
- HMGT 3925 - Principles of Brewing
- HMGT 3940 - Marketing and Distribution of Wine and Craft Beverage
- HMGT 3955 - Applied Business Fundamentals for Wine and Craft Beverage
- HMGT 4300 - Survey of Beverages in the Hospitality Industry *

*A course substitution will be allowed from an approved list of courses for students under the age of 21 or otherwise unable to be in contact with alcoholic beverages.

Hospitality Management minor

Required courses

- NUTR 1450 - Principles of Nutrition (may be used to satisfy the Core Option Courses requirement of the University Core Curriculum)
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2800 - Foundations of International Travel and Tourism

  or
- HMGT 2810 - Introduction to International Sustainable Tourism

Plus two of the following

- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- EDEM 3240 - Event Service Essentials
- HMGT 3260 - Resort and Club Management
- HMGT 3700 - Hotel Operations
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4300 - Survey of Beverages in the Hospitality Industry

Undergraduate Academic Certificates

Enology and Brewing certificate

Students who earn the Enology and Brewing Certificate will earn a multidisciplinary education in the principles underlying wine and beer production and distribution, including hands-on project-based learning in viticulture and fermentation. With the support of local industry partners, students will also have the opportunity to develop a knowledge base for problem-solving and decision-making in the fields of commercial beverage production or business management.

Requirements, 9 hours

- HMGT 3900 - Principles of Viticulture
- HMGT 3910 - Principles of Enology
- HMGT 3925 - Principles of Brewing

Elective, 3 hours

Choose one:

- HMGT 3940 - Marketing and Distribution of Wine and Craft Beverage
- HMGT 3955 - Applied Business Fundamentals for Wine and Craft Beverage
- HMGT 4300 - Survey of Beverages in the Hospitality Industry

Event Management certificate

The event management certificate requires 12 hours of coursework.

Required courses, 12 hours

Total of 12 hours (four courses).

- EDEM 1600 - Introduction to Global Event Management

Plus 9 hours from the following:

Select three from below.

- EDEM 3210 - Intellectual Property and Sports Entertainment
- EDEM 3240 - Event Service Essentials
- EDEM 3500 - Event Catering Operations
- EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- EDEM 3700 - Modern Wedding Planning
- EDEM 4200 - Sustainability in the Event Industry

Food and Beverage Management certificate

This certificate provides knowledge and skills related to the food and beverage (F&B) segment of the hospitality industry.

Pick any 4 courses from the following:

- NUTR 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 3470 - Global Kitchen: A Culinary Journey
- HMGT 4001 - Chicago Study Tour
- HMGT 4210 - Hospitality Cost Controls
- HMGT 4300 - Survey of Beverages in the Hospitality Industry
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design

Hospitality Finance and Accounting Management certificate

This certificate will help students gain knowledge and skills in financial analysis and management-related problem-solving in the hospitality and tourism industry.

Pick any 4 courses from the following:

- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2480 - Hospitality Accounting II - Managerial

- HMGT 4210 - Hospitality Cost Controls
- HMGT 4480 - Hospitality Industry Finance
- HMGT 4490 - Hospitality Revenue Management

Hospitality Technology and Analytics Management certificate

This certificate will provide opportunities to learn about the latest hospitality technologies and the tools for financial success.

Required courses

Hospitality Technology & Analytics MGMT (12 Hours)

- HMGT 2920 - Analytical Tools for Hospitality and Tourism

  or

- MDSE 2700 - Excel for Industry

- HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism

Choose 2 from following:

- HMGT 4490 - Hospitality Revenue Management
- HMGT 4480 - Hospitality Industry Finance
- HMGT 2480 - Hospitality Accounting II - Managerial
- HMGT 4210 - Hospitality Cost Controls

Hotel and Club Management certificate

Required courses, 9 hours

- HMGT 3260 - Resort and Club Management
- HMGT 3700 - Hotel Operations
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent

Select one course from the following, 3 hours

- EDEM 3600 - Cruise Events Management
- EDEM 3700 - Modern Wedding Planning
- HMGT 3300 - Hospitality Industry Marketing and Sales
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4150 - Casino Management
- HMGT 4490 - Hospitality Revenue Management

Hotel Operations certificate

The hotel operations certificate requires 12 hours of coursework.

Required courses, 12 hours

- HMGT 3300 - Hospitality Industry Marketing and Sales
- HMGT 3700 - Hotel Operations
- HMGT 4490 - Hospitality Revenue Management

Select one from the following:

- HMGT 3260 - Resort and Club Management
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent
- HMGT 3920 - Recent Developments in the Hospitality Industry
- HMGT 4150 - Casino Management

Live Entertainment Design Management certificate

This certificate introduces the key elements of entertainment events design.

Required courses

- EDEM 1600 - Introduction to Global Event Management
- EDEM 3510 - Entertainment and Experiences in Hospitality and Events
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design

- THEA 1030 - Lighting and Sound I

  or

- THEA 1700 - Theatrical Design I

Elective courses

Pick one from below:

- THEA 3701 - Scenic Design
- THEA 4190 - Sound Production and Design for the Theatre

Department of Merchandising and Digital Retailing

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Sanjukta Pookulangara, Chair

Faculty

Mission

The mission of the department of Merchandising and Digital Retailing is to develop talent for careers in the trend-driven global retail marketplace. The mission embraces innovative and diverse curricula, experiential learning, applied technologies, research experiences, industry involvement and professional development of students. A merchandising degree can lead to careers in the multifaceted industry, including product development, manufacturing, wholesaling and retailing. The program is accredited by the Textile and Apparel Program Accreditation Commission (TAPAC).

Majors

Digital Business and E-commerce, BS

Our digital business and e-commerce program is a unique program among U.S. universities. It is an interdisciplinary degree that focuses on e-commerce merchandising processes. Through innovative course work, you develop skills in merchandising processes, marketing, consumer segments and design architecture.

The following requirements must be satisfied for a Bachelor of Science with a major in digital business and e-commerce:

Degree requirements

Hours required and general/school requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the School of Merchandising and Hospitality Management requirements.

Major requirements

CMHT core, 9 hours including:

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management

Digital business and e-commerce, 30 hours

- DBUS 2080 - E-commerce Platforms
- DBUS 2050 - Introduction to Digital Retailing
- DBUS 3090 - Digital Channel Strategies
- DBUS 3190 - Digital Retail Marketing Campaigns

  or
- DBUS 3290 - Customer-Centric Retailing with Digital CRM
- DBUS 4090 - Digital Merchandising
- DBUS 4370 - Digital Retailing Analytics Tools and Insights
- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 2790 - Talent Development
- MDSE 4660 - Advanced Application

Major electives, 12 hours (chosen in consultation with CMHT advisor)

- ICON 3800 - Consumer Psychology
- CMHT 2560 - Food Retailing: Issues and Trends
- CMHT 3450 - Effective Leadership Communication
- CMHT 4800 - Seminar in Merchandising, Hospitality and Tourism
- DBUS 4000 - Digital Study Tour
- MDSE 3400 - Luxury Fashion Retailing
- MDSE 3510 - Buying
- MDSE 3900 - Branding and Promotion
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4004 - Global Discovery: Europe
- MDSE 4010 - Global Sourcing
- MDSE 4080 - Retail Start-Up
- MDSE 4510 - Advanced Buying, Planning and Allocation
- MDSE 4560 - Sustainable Strategies in Merchandising

Other course requirements

Business courses, 6 hours

- ACCT 2010 - Accounting Principles I (Financial Accounting)
- MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors

General electives, 21 hours

Hours required for electives may vary based on course selection and the University Core Curriculum requirements.

Other requirements

A maximum of 18 hours of technical credit from an accredited college may be applied to the degree.

GPA requirements

- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE.
- Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:
  1. a minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE courses;
  2. a minimum of 2.0 grade point average in all courses completed at UNT; and
  3. a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
DBUS 2050 - Introduction to Digital Retailing	3 hours	MDSE 2700 - Excel for Industry	3 hours
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Mathematics core	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	DBUS 3590 - Digital Order Fulfillment and Customer Service Strategies	3 hours
DBUS 2080 - E-commerce Platforms	3 hours	MDSE 2790 - Talent Development	3 hours
MDSE 2750 - Consumers in a Global Market	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
DBUS Major Elective Courses	3 hours	DBUS Major Elective Courses	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
DBUS 3090 - Digital Channel Strategies	3 hours	CMHT 3950 - Creating Consumer Experiences	3 hours
MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors	3 hours	DBUS 3190 - Digital Retail Marketing Campaigns	3 hours
Component Area Option A core	3 hours	DBUS Major Elective Courses	3 hours
Government/Political Science core	3 hours	Elective	3 hours
DBUS Major Elective Courses	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
DBUS 4090 - Digital Merchandising	3 hours	CMHT 4750 - Workforce Dynamics in a Global Business Environment	3 hours
DBUS 4370 - Digital Retailing Analytics Tools and Insights	3 hours	CMHT 4790 - Internship in Merchandising and Hospitality Management	3 hours
MDSE 4660 - Advanced Application	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Interdisciplinary Studies in Consumer Insights, BS

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, for fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the School of Merchandising and Hospitality Management.

CMHT core, 9 hours

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management

Merchandising and digital retailing core, 9 hours

- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 2790 - Talent Development

Interdisciplinary studies in consumer insights foundation, 15 hours

- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- ICON 4750 - Consumer Experience Design
- ICON 4880 - Integrated Retail Strategy
- MDSE 3900 - Branding and Promotion

Interdisciplinary specializations, 21 hours

Students may choose one or two specializations.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements.

Other requirements

A maximum of 18 hours of technical credit from an accredited college may be applied to the degree.

GPA requirements

- It is required that students entering the School of Merchandising and Hospitality Management have a minimum grade point average of at least 2.0 on all courses completed at UNT.
- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE.
- Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:
  1. a minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE courses;
  2. a minimum of 2.0 grade point average in all courses completed at UNT; and
  3. a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
MDSE 2700 - Excel for Industry	3 hours	MDSE 2750 - Consumers in a Global Market	3 hours
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Mathematics Core	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
MDSE 2790 - Talent Development	3 hours	Component Area Option A core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Interdisciplinary Specialization course	3 hours	Interdisciplinary Specialization course	3 hours
Interdisciplinary Specialization course	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ICON 3800 - Consumer Psychology	3 hours	ICON 4440 - Consumer Analytics and Data Visualization	3 hours
MDSE 3900 - Branding and Promotion	3 hours	CMHT 3950 - Creating Consumer Experiences	3 hours
Interdisciplinary Specialization course	3 hours	Interdisciplinary Specialization course	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ICON 4750 - Consumer Experience Design	3 hours	CMHT 4750 - Workforce Dynamics in a Global Business Environment	3 hours
ICON 4880 - Integrated Retail Strategy	3 hours	CMHT 4790 - Internship in Merchandising and Hospitality Management	3 hours
Interdisciplinary Specialization course	3 hours	Elective	3 hours
Interdisciplinary Specialization course	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Merchandising with a concentration in Fashion Merchandising, BS

As a student pursuing the Bachelor of Science with a major in merchandising, you become skilled in consumer studies, textiles, fashion theory, trend analysis, brand development and promotion. This curriculum was developed in consultation with leaders of the Dallas-Fort Worth retail industry to give you the essential skills for the job market. The program is accredited by the Textile and Apparel Program Accreditation Commission (TAPAC).

Program requirements

Degree requirements

Hours required and general/school requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the School of Merchandising and Hospitality Management requirements.

Major

CMHT core, 9 hours

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management

Merchandising specialization, 27 hours

- DBUS 3090 - Digital Channel Strategies
- MDSE 2490 - Introduction to Merchandising
- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 2790 - Talent Development
- MDSE 3510 - Buying
- MDSE 4010 - Global Sourcing
- MDSE 4560 - Sustainable Strategies in Merchandising
- MDSE 4660 - Advanced Application

Fashion merchandising concentration, 18 hours

- MDSE 2350 - Trend Analysis and Forecasting
- MDSE 2650 - Textiles for Apparel
- MDSE 3350 - History of Fashion
- MDSE 3370 - Social Psychology of Dress and Appearance
- MDSE 3900 - Branding and Promotion
- MDSE 4250 - Product Development

Other course requirements

- ACCT 2010 - Accounting Principles I (Financial Accounting)

General electives

Hours required for electives may vary based on course selections and the University Core Curriculum requirements.

Other requirements

A maximum of 18 hours of technical credit from an accredited college may be applied to the degree.

GPA requirements

- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE.

- Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:
  - a minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, ICON and MDSE courses;
  - a minimum of 2.0 grade point average in all courses completed at UNT; and
  - a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MDSE 2490 - Introduction to Merchandising	3 hours	ECON 1100 - Principles of Microeconomics	3 hours
American History core	3 hours	MDSE 2350 - Trend Analysis and Forecasting	3 hours
Communication core	3 hours	MDSE 2650 - Textiles for Apparel	3 hours
Creative Arts core	3 hours	American History core	3 hours
Mathematics core	3 hours	Communication core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ACCT 2010 - Accounting Principles I (Financial Accounting)	3 hours	MDSE 2790 - Talent Development	3 hours
MDSE 2750 - Consumers in a Global Market	3 hours	MDSE 3900 - Branding and Promotion	3 hours
MDSE 3370 - Social Psychology of Dress and Appearance	3 hours	MDSE 4560 - Sustainable Strategies in Merchandising	3 hours
Government/Political Science core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
DBUS 3090 - Digital Channel Strategies	3 hours	MDSE 3510 - Buying	3 hours
MDSE 2700 - Excel for Industry	3 hours	MDSE 4010 - Global Sourcing	3 hours
MDSE 3350 - History of Fashion	3 hours	MDSE 4250 - Product Development	3 hours
Government/Political Science core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CMHT 3950 - Creating Consumer Experiences	3 hours	CMHT 4750 - Workforce Dynamics in a Global Business Environment	3 hours
MDSE 4660 - Advanced Application	3 hours	CMHT 4790 - Internship in Merchandising and Hospitality Management	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Merchandising with a concentration in Furnishings and Décor, BS

As a student pursuing the Bachelor of Science with a major in merchandising, you become skilled in consumer studies, textiles, fashion theory, trend analysis, brand development and promotion. This curriculum was developed in consultation with leaders of the Dallas-Fort Worth retail industry to give you the essential skills for the job market. The program is accredited by the Textile and Apparel Program Accreditation Commission (TAPAC).

Program requirements

Degree requirements

Hours required and general/school requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the School of Merchandising and Hospitality Management requirements.

Major requirements

CMHT core, 9 hours

- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4790 - Internship in Merchandising and Hospitality Management

Merchandising specialization, 27 hours

- DBUS 3090 - Digital Channel Strategies
- MDSE 2490 - Introduction to Merchandising
- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 2790 - Talent Development
- MDSE 3510 - Buying
- MDSE 4010 - Global Sourcing
- MDSE 4560 - Sustainable Strategies in Merchandising
- MDSE 4660 - Advanced Application

Furnishings and décor concentration, 18 hours

- FADM 2380 - Aesthetics and Environment
- FADM 2655 - Textiles for Home Furnishings
- FADM 3355 - Styles and Trends in Furnishings and Décor
- FADM 3410 - Technologies in Furnishings and Décor Merchandising
- FADM 3570 - Furniture and Decorative Accessories: Markets, Materials and Merchandising
- FADM 4400 - Capstone in Furnishings and Décor

Other course requirements

- ACCT 2010 - Accounting Principles I (Financial Accounting)

General electives

Hours required for electives may vary based on course selections and the University Core Curriculum requirements.

Other requirements

A maximum of 18 hours of technical credit from an accredited college may be applied to the degree.

GPA requirements

- A grade of C or above must be earned in each merchandising and hospitality management course completed in residence or transferred to UNT. This includes all courses with prefixes CMHT, DBUS, EDEM, FADM, HMGT, MDSE, and ICON.
- Academic requirements for graduation with a BS from the School of Merchandising and Hospitality Management include:
  - a minimum of 2.0 grade point average in the professional field, with minimum grades of C required in all CMHT, DBUS, EDEM, FADM, HMGT, MDSE, and ICON courses;
  - a minimum of 2.0 grade point average in all courses completed at UNT; and
  - a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.

Grad Track Options

Digital Business and E-commerce, BS with grad track option leading to Merchandising and Digital Retailing, MS

The Grad Track Pathway offers provisional admission for the M.S. in Merchandising and Digital Retailing for exceptional undergraduate students. Aligned undergraduate and graduate courses allow students to progress more efficiently to pursue career goals or to prepare for a doctoral degree.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the digital business and e-commerce BS program. Students are eligible to apply for the grad track option during their junior year, after completing at least 75 credit hours. A cumulative GPA of 3.5. or higher is required at the time of application

The student's application will be reviewed by both undergraduate and graduate advisors. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours, the student is eligible to take specified graduate courses for credit toward the MS degree. Students should earn a B or higher in these courses to be counted toward the MS degree.

Students admitted to the grad track option will be conditionally admitted to the MS program.

Undergraduate students who have been accepted to the grad track option should complete all BS degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses or enrollment in graduate-level course work will be suspended.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

Students may select up to 6-9 hours from the following courses, which are all 3 credits, if they are on the academic track. Students may select up to 6 hours from the following courses if they are on the professional track.

- CMHT 5000 - Global Discovery in Merchandising and Hospitality Management (CMHT 4000 - Global Discovery in Merchandising and Hospitality Management)
- CMHT 5100 – Introduction to Research in Merchandising
- CMHT 5300 – Research Methods in Merchandising and Hospitality Management
- CMHT 5440 - Consumer Theory (ICON 3800 - Consumer Psychology)
- CMHT 5550 - Promotional Strategies (MDSE 3900 - Branding and Promotion)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CMHT 5770 - Digital Strategies and Consumer Insight (DBUS 3090 - Digital Channel Strategies)
- CMHT 5800 – Seminar in Various Areas of Concentration
- MDSE 5090 - Digital Merchandising (DBUS 4090 - Digital Merchandising)
- MDSE 5240 - Global Retailing (MDSE 4010 - Global Sourcing)
- MDSE 5330 - Consumer Analytics and Data Visualization (ICON 4440 - Consumer Analytics and Data Visualization)
- MDSE 5510 - Advanced Buying, Planning and Allocation (MDSE 4510 - Advanced Buying, Planning and Allocation)
- MDSE 5560 - Sustainable Strategies in Merchandising (MDSE 4560 - Sustainable Strategies in Merchandising)
- MDSE 5660 - Advanced Merchandising Applications (MDSE 4660 - Advanced Application)
- MDSE 5750 - Digital Retailing (DBUS 3190 - Digital Retail Marketing Campaigns)

All remaining courses for the Digital Business and E-commerce, BS must be completed.

Interdisciplinary Studies in Consumer Insights, BS with grad track option leading to Merchandising and Digital Retailing, MS

The Grad Track Pathway offers provisional admission for the M.S. in Merchandising and Digital Retailing for exceptional undergraduate students. Aligned undergraduate and graduate courses allow students to progress more efficiently to pursue career goals or to prepare for a doctoral degree.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the consumer experience management, BS program. Students are eligible to apply for the grad track option during their junior year, after completing at least 75 credit hours. A cumulative GPA of 3.5. or higher is required at the time of application

The student's application will be reviewed by both undergraduate and graduate advisors. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours, the student is eligible to take specified graduate courses for credit toward the MS degree. Students should earn a B or higher in these courses to be counted toward the MS degree.

Students admitted to the grad track option will be conditionally admitted to the MS program.

Undergraduate students who have been accepted to the grad track option should complete all BS degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses or enrollment in graduate-level course work will be suspended.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

Students may select up to 6-9 hours from the following courses, which are all 3 credits, if they are on the academic track. Students may select up to 6 hours from the following courses if they are on the professional track.

- CMHT 5000 - Global Discovery in Merchandising and Hospitality Management(CMHT 4000 - Global Discovery in Merchandising and Hospitality Management)
- CMHT 5440 - Consumer Theory (ICON 3800 - Consumer Psychology)
- CMHT 5550 - Promotional Strategies (MDSE 3900 - Branding and Promotion)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CMHT 5770 - Digital Strategies and Consumer Insight (DBUS 3090 - Digital Channel Strategies)
- MDSE 5090 - Digital Merchandising(DBUS 4090 - Digital Merchandising)
- MDSE 5240 - Global Retailing (MDSE 4010 - Global Sourcing)
- MDSE 5330 - Consumer Analytics and Data Visualization (ICON 4440 - Consumer Analytics and Data Visualization)
- MDSE 5510 - Advanced Buying, Planning and Allocation (MDSE 4510 - Advanced Buying, Planning and Allocation)
- MDSE 5560 - Sustainable Strategies in Merchandising (MDSE 4560 - Sustainable Strategies in Merchandising)
- MDSE 5660 - Advanced Merchandising Applications (MDSE 4660 - Advanced Application)
- MDSE 5750 - Digital Retailing (DBUS 3190 - Digital Retail Marketing Campaigns)

All remaining courses for the Interdisciplinary Studies in Consumer Insights, BS must be completed.

Merchandising, BS with grad track option leading to Merchandising, MS

The Grad Track Pathway offers provisional admission for the M.S. in Merchandising and Digital Retailing for exceptional undergraduate students. Aligned undergraduate and graduate courses allow students to progress more efficiently to pursue career goals or to prepare for a doctoral degree.

Admission requirements and program policies

Admission requirements

Students applying to the grad track option should be majors in the merchandising BS program. Students are eligible to apply for the grad track option during their junior year, after completing at least 75 credit hours. A cumulative GPA of 3.5. or higher is required at the time of application

The student's application will be reviewed by both undergraduate and graduate advisors. Once approved, the student must apply to the Toulouse Graduate School within the first semester of their senior year.

Program policies

After completing at least 90 credit hours, the student is eligible to take specified graduate courses for credit toward the MS degree. Students should earn a B or higher in these courses to be counted toward the MS degree.

Students admitted to the grad track option will be conditionally admitted to the MS program.

Undergraduate students who have been accepted to the grad track option should complete all BS degree requirements and graduate within 12 months of the first day of the semester for which they began taking graduate courses or enrollment in graduate-level course work will be suspended.

The student must enroll in the graduate school in the long semester after finishing the BS degree and should take the remaining graduate courses in the following year(s) to complete the MS degree. If the student does not enroll in the graduate school in the long semester after finishing the BS degree, those graduate course credit hours will not be counted for the MS degree, even if the student comes back for graduate school in the future.

Program requirements

Students may select up to 6-9 hours from the following courses, which are all 3 credits, if they are on the academic track. Students may select up to 6 hours from the following courses if they are on the professional track.

- CMHT 5000 - Global Discovery in Merchandising and Hospitality Management (CMHT 4000 - Global Discovery in Merchandising and Hospitality Management)
- CMHT 5100 – Introduction to Research in Merchandising
- CMHT 5300 – Research Methods in Merchandising and Hospitality Management
- CMHT 5440 - Consumer Theory (ICON 3800 - Consumer Psychology)
- CMHT 5550 - Promotional Strategies (MDSE 3900 - Branding and Promotion)
- CMHT 5600 - Managing Customer Experiences (CMHT 3950 - Creating Consumer Experiences)
- CMHT 5770 - Digital Strategies and Consumer Insight (DBUS 3090 - Digital Channel Strategies)
- CMHT 5800 –Seminar in Various Areas of Concentration
- MDSE 5090 - Digital Merchandising (DBUS 4090 - Digital Merchandising)
- MDSE 5240 - Global Retailing (MDSE 4010 - Global Sourcing)
- MDSE 5330 - Consumer Analytics and Data Visualization (ICON 4440 - Consumer Analytics and Data Visualization)
- MDSE 5510 - Advanced Buying, Planning and Allocation (MDSE 4510 - Advanced Buying, Planning and Allocation)
- MDSE 5560 - Sustainable Strategies in Merchandising (MDSE 4560 - Sustainable Strategies in Merchandising)
- MDSE 5660 - Advanced Merchandising Applications (MDSE 4660 - Advanced Application)
- MDSE 5750 - Digital Retailing (DBUS 3190 - Digital Retail Marketing Campaigns)

All remaining courses for the Merchandising with a concentration in Fashion Merchandising, BS or Merchandising with a concentration in Furnishings and Décor, BS must be completed.

Minors

Consumer Insights minor

The Consumer Insights minor examines the consumer's experience in the journey of search, acquisition, use and disposal of products and services. Consumer Insights supports interdisciplinary applications across many fields of study including retail, hospitality, tourism, travel, information, entertainment, recreation, health care, finance, sports management, gaming, business, decision science, computer science, engineering and public health. Through six distinct courses, students gain a comprehensive theory-based understanding of the consumer journey as it is applied through a global perspective, social networks, strategies, analytics and applications.

Required courses, 18 hours

18 hours chosen from the list below.

- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- CMHT 3950 - Creating Consumer Experiences
- MDSE 2700 - Excel for Industry
- MDSE 2750 - Consumers in a Global Market
- MDSE 3900 - Branding and Promotion
- MDSE 4560 - Sustainable Strategies in Merchandising

Digital Business and E-commerce minor

The minor in digital business and e-commerce requires 18 hours.

Requirements

- DBUS 2080 - E-commerce Platforms
- DBUS 2050 - Introduction to Digital Retailing
- DBUS 3090 - Digital Channel Strategies
- DBUS 4370 - Digital Retailing Analytics Tools and Insights

Plus 6 hours selected from

- CMHT 3950 - Creating Consumer Experiences
- DBUS 3190 - Digital Retail Marketing Campaigns
- DBUS 3290 - Customer-Centric Retailing with Digital CRM
- DBUS 4000 - Digital Study Tour
- DBUS 4070 - Retail Web Analytics
- DBUS 4090 - Digital Merchandising

Furnishings and Décor Merchandising minor

The minor in furnishings and décor merchandising requires 18 hours.

Required courses

- FADM 2380 - Aesthetics and Environment
- FADM 3355 - Styles and Trends in Furnishings and Décor
- FADM 3410 - Technologies in Furnishings and Décor Merchandising
- FADM 3570 - Furniture and Decorative Accessories: Markets, Materials and Merchandising
- MDSE 2490 - Introduction to Merchandising
- FADM 4400 - Capstone in Furnishings and Décor

Alternative requirements for interior design majors

Students majoring in interior design who wish to minor in home furnishings merchandising are encouraged to take the following courses (instead of the courses listed above):

- FADM 2655 - Textiles for Home Furnishings
- FADM 3355 - Styles and Trends in Furnishings and Décor
- FADM 3410 - Technologies in Furnishings and Décor Merchandising
- FADM 3570 - Furniture and Decorative Accessories: Markets, Materials and Merchandising
- FADM 4400 - Capstone in Furnishings and Décor

Merchandising minor

Required

- DBUS 3090 - Digital Channel Strategies
- MDSE 2350 - Trend Analysis and Forecasting
- MDSE 2490 - Introduction to Merchandising
- MDSE 3370 - Social Psychology of Dress and Appearance
- MDSE 4010 - Global Sourcing

Plus one of the following

- ICON 3800 - Consumer Psychology
- MDSE 2750 - Consumers in a Global Market

Undergraduate Academic Certificates

Consumer Analytics certificate

This 12-hour certificate program is designed to provide students with the skills needed to analyze and interpret consumer data, driving strategic decision-making in the retail industry. Students will learn to use analytic tools like Excel, Tableau and Power BI to uncover valuable insights into consumer behavior.

Required courses, 12 hours

- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- DBUS 3290 - Customer-Centric Retailing with Digital CRM
- MDSE 2700 - Excel for Industry

Creative Economy certificate

Do you want to take a course that makes your creative juice flow? Experience industry outside the United States? Well, this is the certificate for you. The certificate is designed to enable students explore the creative aspects of the retail industry culminating with a study tour to the fashion capitals of either Europe or NY.

Course requirements

Courses may include:

- MDSE 2350 - Trend Analysis and Forecasting
- MDSE 3900 - Branding and Promotion
- MDSE 3350 - History of Fashion

  or
- MDSE 3370 - Social Psychology of Dress and Appearance

Choose one from the following:

- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4004 - Global Discovery: Europe

Digital Insights certificate

Businesses and consumers are digitally connected 24/7. Today, no business can survive without the basic understanding of how digital impacts the industry. This certificate is designed to provide an overview of the digital retail industry. Student will gain a working knowledge of how the industry is constantly evolving to better meet the needs of the changing consumer.

Course requirements

- DBUS 2050 - Introduction to Digital Retailing
- DBUS 3090 - Digital Channel Strategies
- DBUS 3190 - Digital Retail Marketing Campaigns

  or
- DBUS 3290 - Customer-Centric Retailing with Digital CRM
- DBUS 4370 - Digital Retailing Analytics Tools and Insights

Fashion Buying certificate

The 12 hour certificate allows the student to gain a better understanding of the buying process. The courses will provide students the necessary skill set to embark into a buying career.

Required courses, 12 hours

Pick any 4 courses from the following:

- MDSE 3510 - Buying

Three courses from the following

- MDSE 2350 - Trend Analysis and Forecasting
- MDSE 3400 - Luxury Fashion Retailing
- MDSE 4010 - Global Sourcing
- MDSE 4250 - Product Development

Global Fashion Brand Management certificate

This 12 hour certificate is designed to provide students with the knowledge and skills to manage a "global brand". Students will engage in course work which will provide them with insight about global brands and brands and can culminate with a study tour to Europe.

Required courses, 9 hours

- MDSE 2350 - Trend Analysis and Forecasting
- MDSE 2750 - Consumers in a Global Market
- MDSE 4010 - Global Sourcing

Pick one of the following courses:

- ICON 3800 - Consumer Psychology
- MDSE 3400 - Luxury Fashion Retailing
- MDSE 4004 - Global Discovery: Europe

Leadership in Sustainable Food and Fiber certificate

The 12-hour undergraduate certificate in leadership in sustainable food and fiber offers students a comprehensive understanding of sustainable practices within the food and fiber industries, coupled with essential leadership skills necessary for addressing the challenges of today's global agricultural landscape. Through a combination of coursework and experiential learning, students gain insight into the complexities of the food and fiber supply chains and learn how to implement sustainable practices to enhance productivity while minimizing environmental impact. Students also develop critical leadership skills essential for driving positive change in the food and fiber related industries through effective communication strategies, problem-solving techniques, and collaborative approaches.

Required courses

- CMHT 3450 - Effective Leadership Communication
- CMHT 4001 - Global Discovery: Sustainable Food and Fiber
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4801 - Seminar in Leadership

Transformational Leadership certificate

The transformational leadership certificate is offered to students seeking advanced levels of professional achievement. Today, more than ever, retail and hospitality companies need transformational leaders. Leaders who are inspirational, visionary, collaborative, resourceful and polished. For current CMHT students, the certificate supports skill development in communication, team building, corporate culture, change management, conflict resolution and ethics and workplace diversity.

Required courses, 12 hours

Students complete 12 credits from the courses listed below.

- CMHT 3450 - Effective Leadership Communication
- CMHT 4750 - Workforce Dynamics in a Global Business Environment
- CMHT 4801 - Seminar in Leadership
- HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent

  or

- MDSE 2790 - Talent Development

College of Music

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Music Building, Room 247

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Eric Nestler, Chair, Division of Instrumental Studies
Sungji Hong, Chair, Division of Composition Studies
Robert Parton, Chair, Division of Jazz Studies
Sean Powell, Chair, Division of Music Education
Molly Fillmore, Chair, Division of Vocal Studies
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Joel D. Wiley, Director of Admissions
Music Building, Room 247H
940-565-4349

Faculty

The College of Music, among the largest in the nation, offers a comprehensive musical environment and unlimited opportunities for the pursuit of excellence in the musical arts for talented and dedicated musicians. The breadth of the musical experience includes the study and performance of the extended gamut of Western art music, the music of global cultures, commercial music, and the creative contributions of contemporary jazz and electronic/experimental media.

The depth of the instruction is provided by a faculty of internationally acclaimed performers, composers, scholars, and educators who are able to share their knowledge, skills and insights with the next generation of musicians, from the baccalaureate to the doctoral and artist levels. The entire program is enhanced by the holdings of the UNT Music Library, the largest and most comprehensive collection among universities in the South and Southwest. Graduates of the College of Music hold positions of leadership and influence throughout the nation in the areas of concert, opera, symphony and jazz performance, in higher education and scholarship, and in public school music education. The College of Music, with its wealth of campus concert experiences and varied instructional programs, is a unique asset in the cultural and intellectual life of the university community; in turn, its effectiveness is enhanced by being part of a large, comprehensive university situated in the vibrant DFW metroplex with a wealth of opportunities available to students.

The College of Music is accredited by the National Association of Schools of Music (11250 Roger Bacon Drive, Suite 21, Reston, VA 20190; 703-437-0700).

Our Mission and Vision

The mission of the UNT College of Music is to serve our diverse musical culture with excellence, integrity, and imagination.
The vision of the UNT College of Music is to provide leadership, artistry, and expertise to every facet of the music profession.

Admission requirements

Freshman and transfer admission

Admission to the College of Music is contingent on clear admission to the university.

All students who intend to major in music must apply separately to the College of Music for music admission consideration. For detailed procedures and deadlines, please refer to the College of Music website music.unt.edu/admissions.

Application Requirements

Application requirements for all areas can be found on our music admissions page.

Transfer applicants for composition must also submit a composition portfolio.

Scholarships

In addition to UNT scholarships, College of Music scholarships and service awards are available for study in all of the college's programs. All prospective students who apply and audition for admission to the College of Music are considered for scholarship, based on their audition. Scholarship recipients are required to enroll full-time, maintain minimum academic grade requirements and perform in appropriate music laboratories and ensembles as assigned.

For information, audition dates and step-by-step instructions on how to apply to UNT and the College of Music, visit our admissions page.

General requirements for majors

Music fees

Music fees are charged for private music lessons, practice on university instruments, instrument rental (only a limited number of instruments are available for rental), practice rooms and lockers. Music course fees average approximately $55 per course. Total music course fees per semester will average approximately $450 for undergraduate students. For specific fees, check with student accounting.

All fees must be paid before instruction is given or use of facilities is permitted.

Applied music

Study in applied music (private lessons) is identified by the categories major, concentration or secondary. The type and amount of applied study is specified in the student's degree plan.

Applied major — study of the student's principal instrument (or voice) toward a degree in performance.

Concentration — applied music study of the student's principal instrument (or voice) toward a degree other than in performance.

Secondary — study of an instrument (or voice) in addition to the major or concentration.

Juries

During each term/semester of required applied study, the student must pass performance examination(s) before a jury composed of faculty members. Jury requirements are available on request from the relevant applied faculty member, division chair, or administrative office.

Concert/recital attendance

Each student with a major in music is expected to attend a variety of concerts and recitals in addition to required departmental recitals as a graduation requirement.

Music laboratories

Music laboratories are an integral part of the college. Each Bachelor of Music student must enroll in a laboratory each long term/semester. Unless otherwise directed, students should register for a laboratory that is appropriate to their degree and instrument voice. Exceptions require final approval from the Associate Dean for Academic Affairs.

A minimum of eight terms/semesters is required for the Bachelor of Music degree, except the BM in music education, which requires a minimum of seven terms/semesters. Six terms/semesters are required for the Bachelor of Arts degree.

Laboratories include (but are not limited to) A Cappella Choir, Concert Choir, University Singers, Chorale, Camerata, Symphony Orchestra, Concert Orchestra, Wind Symphony, Wind Orchestra, Wind Ensemble, Concert Band, Marching Band, Brass Band, Jazz Lab Bands, Jazz Guitar Lab, Commercial Music Lab, Latin Jazz Lab, Jazz Singers, Classical Guitar Laboratory, Accompanying and Electronics Ensemble. Auditions are held at the beginning of the term/semester and are prerequisite for admission to the laboratory.

A Cappella Choir — organized in 1938; composed of 45 voices; has made more than 700 appearances, including annual tours, and television and radio broadcasts; yearly performances with major symphony orchestras; professional recordings; two European tours sponsored by the State Department.

Accompanying — for students majoring in piano and for students with piano concentrations who desire proficiency in reading and accompanying.

Camerata — this treble choir is comprised of soprano and alto singers. No audition is required.

Chorale — subsidiary organization of the a cappella and concert choirs; membership may be shifted from one choir to another. Gives several concerts a year.

Classical Guitar Laboratory — laboratory ensemble for Classical Guitar majors.

Commercial Music Laboratory — the repertoire is devoted primarily to electronic idioms and the reading of notated melodic passages as well as chord symbols. Good acoustic piano technique and improvisational skills are required.

Concert Band — study and performance of standard band repertoire. Public concerts each term/semester.

Concert Choir — organized in 1940; major performing ensemble of about 50 mixed voices; membership may be shifted from one choir to another.

Concert Orchestra — subsidiary organization of the Symphony Orchestra; membership may be shifted from one orchestra to another. Gives several concerts a year.

Electronics Ensemble — Students participating in the Electronics Ensemble perform using electronics including computers, tablets, smart phones, electronic instruments, and/or other electronic hardware devices and interfaces. This ensemble is required for Electronics Concentrations and is otherwise available by audition and through consultation with the student's area of concentration. The ensemble collaborates on group performances, but members may also be assigned to other performing ensembles as appropriate.

Jazz Guitar Laboratory — composed of 15 electric guitarists, bass and drums. Open to all by audition. The music performed is a combination of big band literature and original music, which provides the student with an opportunity to develop reading skills and section playing. Public concerts each term/semester.

Jazz Lab Band — 19-piece jazz ensembles. Open to all university students by audition. Study and performance of traditional and progressive repertoire. Public concerts each term/semester. One O'Clock Lab Band has won numerous awards and has received Grammy nominations; toured Mexico, Europe, the former USSR and Australia.

Jazz Repertory Laboratory — a history-based learning and performing group dedicated to the collection, study, preservation, and re-creation of classic music from the entire history of jazz. The ensemble ranges in number from 15 to 20 students. The group is committed to playing only authentic compositions and arrangements or recreations of classic recorded performances by such jazz legends as Fletcher Henderson, Count Basie, Duke Ellington, Benny Goodman, Woody Herman, Gil Evans and Charles Mingus.

Jazz Singers Laboratory — mixed voices and rhythm, composed of 15 to 20 musicians. Open by audition; required of vocal jazz majors. Jazz Singers I has appeared at numerous international conventions and records annually.

Latin Jazz Lab — this ensemble ventures into musical fusions between Latin American rhythmic expressions and American Jazz compositional/improvisational forms. Open to all by audition with priority given to jazz studies majors.

Marching Band — offered fall term/semester only. Open to all students within the university who have had high school band experience. Study and performance of the fundamentals of drill and pageantry at athletic events.

University Singers — composed of 50-70 voices selected primarily from undergraduate students. Repertoire includes selections from a broad range of vocal literature.

Wind Ensemble and Wind Orchestra — composed of about 105 musicians; has appeared at state, regional and national music conventions; programs include standard symphonic works and premieres of contemporary compositions; presents at least eight campus concerts per year.

Wind Symphony — study and performance of traditional and contemporary band literature, requiring an advanced level of performance ability. Appears by invitation at state, regional and national conventions; annual spring tour.

Chamber music

Small chamber groups include (but are not limited to) string quartets, strings with piano, woodwind and brass quintets, saxophone quartets and jazz groups.

Ensembles

A variety of conducted ensembles is offered. Many groups perform publicly, appear at conventions and tour extensively. Ensembles include (but are not limited to) brass choir, trumpet choir, horn choir, trombone choir, tuba-euphonium ensemble, Collegium Musicum, percussion ensemble and marimba ensemble, steel drum band, African ensemble, Mariachi ensemble, Chinese ensemble, gamelan ensemble, flute choir, jazz ensembles, string ensembles, classical guitar and electric guitar ensembles, NOVA ensemble and harp ensemble.

Opera Theatre

The UNT Opera Theatre presents at least one fully mounted major operatic production each year, accompanied by orchestra, with scenery, costumes and lighting. Auditions are open to all students. Those chosen for solo roles should be currently enrolled in opera theatre courses or have been enrolled previously.

Voice majors take Opera Theatre, as part of their degree requirements.

Music achievement examinations

Students must pass all required achievement examinations before applying for graduation.

Upper Division Examination — The Upper Division Examination is administered to all music majors at the conclusion of the fourth consecutive long term/semester of study at the MUAM or MUAC 1500 level. It will be given during pre-finals week in place of the Jury Examination by the appropriate faculty, i.e., the area of declared applied major or concentration. The Upper Division Examination determines admission and continuation in applied study at the MUAM or MUAC 3500 level.

Piano Proficiency Examination — This examination is required of all students majoring in music. To prepare for this examination, all non-keyboard majors must enroll in Keyboard Skills — MUAG 1011, MUAG 1012, MUAG 1013, or MUAG 1014, or MUAS 1501 (secondary piano) — each long term/semester until the proficiency is passed. A list of examination requirements for non-keyboard majors is available from the music office. Keyboard majors and concentrations should consult the keyboard division for departmental requirements.

Voice Proficiency Examination — If noted on the degree plan, the student must demonstrate knowledge of breath control, principles of enunciation and pronunciation in singing and tone placement, and essentials in interpretation. Examination compositions are chosen by faculty.

Concentration Proficiency Examination — This examination must be passed for each concentration (all majors except performance and jazz studies); it covers applied music requirements through the third year of study.

Jazz Studies Continuation Examination — This examination is required for all jazz majors. It must be passed prior to enrolling in upper-level courses (MUJS 3360, MUJS 3370, MUJS 4610, MUJS 4620 or MUJS 3070).

Jazz Studies Applied Concentration Examination — This examination must be passed by each student majoring in jazz studies. Performance and Vocal Emphasis students must pass this exam before a senior recital is allowed.

Jazz Arranging Proficiency Examination — This examination must be passed by each student majoring in jazz with an emphasis of jazz arranging before a senior recital is allowed.

Academic advising

Information about academic matters is available in the main office, from the division chairs for the various degree programs and performing instruments, and from the degree program advisors (Chilton Hall, Room 211). For further information, see the *College of Music Handbook* or visit music.unt.edu/advising.

Degree audit

A degree audit is an official document of the university that lists all the courses needed to complete a chosen degree and shows how all of the completed courses are applied toward the degree. Each music major will have a degree audit prepared by the College of Music advising office. Students are able to access their personalized Interactive degree audit here.

Academic Review and Dismissal Policy

Transcripts of music majors (BM and BA) will be reviewed in the freshman and sophomore years. Students who have received three or more grades of D, F or WF in any courses during their studies at UNT will be notified of insufficient academic progress. Students who continue to show insufficient academic progress in subsequent semesters will be dismissed from the College of Music. In most cases, students who are placed on university academic probation or suspension will be removed from the UNT College of Music. Students may appeal this decision by contacting the College of Music Dean for Academic Affairs.

Accepted music majors who are classified as music undecided (MUND) must officially declare a major before registering for their fourth long semester at UNT. Failure to meet this requirement may result in dismissal from the College of Music. MUND students are required to meet with a music advisor each long semester.

Professional Expectation Policy

The UNT College of Music expects music majors (BM and BA) to be committed to their degree and follow the UNT Code of Student Conduct. Students shall exhibit professional behavior at all times, which includes (but is not limited to): class attendance, meeting attendance (including seminars, masterclasses, and departmentals), and respectful interactions with all members of the UNT community. Students are also expected to adhere to professional standards as outlined in division/area handbooks. In cases where there is substantial evidence of unprofessional behavior, students will be removed from the UNT College of Music. Students may appeal this decision by contacting the College of Music Dean for Academic Affairs.

Center for Experimental Music and Intermedia

The Center for Experimental Music and Intermedia (CEMI) provides extensive instructional, research, and performance facilities for composers, researchers, and presenters of computer music and intermedia compositions. It also presents the annual CEMI Event Series featuring computer music and intermedia works created at the University of North Texas and elsewhere, and supports an ongoing program of professional composer residencies. The advanced studio facilities of the division of composition studies are utilized for electroacoustic composition, software synthesis, algorithmic composition, intermedia composition, MIDI applications, computer music notation, digital sampling and resynthesis, and other computer music applications.

Majors

Commercial Music, BA

The BA-Commercial Music is a liberal arts degree in music with a focus on commercial music that provides a solid foundation in sound engineering, digital audio workstations, music business and entrepreneurship, and music industry workflows. The new BA-Commercial Music offers four tracks that include:

1. General Track
2. Commercial Music and Production Track
3. Music for Media Track
4. Business of Commercial Music Track

Applicants to the BA, Commercial Music must apply to UNT before applying to the College of Music. We ask that you provide us with documents and recordings that best showcase your musical talents and interest in pursuing this degree. The following supplemental materials are required and will be uploaded directly to the music application:

- Applicant information
  - Standard personal and contact information
- Personal Statement
  - A personal statement (300-500 words) describing your musical experience, career goals, interests, and reasons for interest in the Commercial Music BA.
- Music Portfolio
  - Please include a document with 3 streaming links to video or audio recordings that demonstrate your musical experience, and a comment for each link that describes the nature of the project and/or context for which it was created or performed. Make sure the links are accessible to us.
  - Your portfolio items can be live performances, home recordings, produced tracks or other media that best represents your musical talents. If you play an instrument and/or sing, consider having one of the items showcase that ability in unedited fashion.
- CV / Resume
  - This resume can be comprehensive; including any information you wish to share specific to your academic and personal/professional background, work experience, and/or achievements in addition to speaking to your musical expertise. If you wish to share any personal websites that you consider are relevant to this application, include them at the top of your resume.

A subset of applicants will be invited for a virtual or on-campus interview. Admissions decisions will be based on the applicant's academic record, their application materials, and their interview. For complete information regarding applications to UNT and the College of Music, consult:

- UNT Admissions Information
- College of Music Undergraduate Admissions Information

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of the Bachelor of Arts Degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music Degree Requirements. Some of the courses required for the degree (see below) may be used to satisfy the University Core Curriculum requirements.

Commercial music/music business, 15 hours

- MUAE 2100 - Sound Engineering
- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUAE 4500 - Commercial Music Capstone
- MUCE 4000 - Music Business and Entrepreneurship
- MUCO 1000 - Creative Practice in the Music Industry

Music Theory, 6 hours

Option A:

- MUTH 1300 - Explorations in Music I
- MUTH 1350 - Explorations in Music II

Option B:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)

Music literature/ethnomusicology, 12 hours

Required, 9 hours:

- MUCO 1200 - Analysis and Critical Listening in Commercial Music and Music Production
- MUMH 1610 - Music as Communication
- MUET 3030 - Music Cultures of the World

Plus 3 hours selected from:

- MUCO 3500 - Cultures of Hip Hop
- MUET 2000 - Global Pop: Music, Media, and Society
- MUET 3060 - African-American Music
- MUJS 3400 - Understanding and Appreciating Jazz in U.S. and World History and Culture
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics

Music Performance, 3 hours

Three hours of MUAS, MUEN, MULB, or any combination thereof. ONE (1) hour of this three-hour requirement should be MUAG 1001 - Piano Class for Non-Music Majors, MUAG 1011 - Keyboard Skills for Music Majors, or MUAG 1107 - Guitar Class.

Tracks, 18 total music courses

General Track, 18 hours

Eighteen hours, 9 of which must be advanced selected from:

- MUAE 3200 - Digital Audio Workstation Techniques
- MUAE 3300 - Techniques of Mixing and Mastering
- MUAE 3400 - Album Making, Pre- to Post-Production
- MUAE 3950 - Commercial Songwriting
- MUCE 4010 - Marketing for Musicians
- MUCE 4020 - Music Leadership and Performing Arts Management
- MUCE 4030 - Music Entrepreneurship Practicum/ Internship
- MUCE 4040 - Music Law and Finance
- MUCE 4050 - Artist Management and Touring
- MUCE 4060 - Beginning Digital Audio Production for Music Entrepreneurs
- MUCE 4070 - Business of Music in Media
- MUCO 2300 - Commercial Music Writing and Production
- MUCO 4000 - Topics in Commercial Music/Production
- MUCP 1180 - Contemporary Materials and Techniques I
- MUCP 2080 - Secondary Composition I
- MUCP 3320 - Instrumentation
- MUCP 4080 - Secondary Composition II
- MUCP 4325 - Digital Orchestration
- MUCP 4550 - Sonic-Visual Aesthetics
- MUCP 4560 - Music in Film and Media
- MUCP 4590 - Intermedia Performance Arts

Commercial music and production track, 18 hours

Required, 12 hours

- MUCO 2300 - Commercial Music Writing and Production
- MUAE 3200 - Digital Audio Workstation Techniques
- MUAE 3300 - Techniques of Mixing and Mastering
- MUAE 3400 - Album Making, Pre- to Post-Production

Plus 6 hours of music electives selected from:

- MUCE 4010 - Marketing for Musicians
- MUCE 4020 - Music Leadership and Performing Arts Management
- MUCE 4030 - Music Entrepreneurship Practicum/ Internship
- MUCE 4040 - Music Law and Finance
- MUCE 4050 - Artist Management and Touring
- MUCE 4060 - Beginning Digital Audio Production for Music Entrepreneurs
- MUCE 4070 - Business of Music in Media
- MUCO 4000 - Topics in Commercial Music/Production
- MUCP 1180 - Contemporary Materials and Techniques I
- MUCP 2080 - Secondary Composition I
- MUCP 3320 - Instrumentation
- MUCP 4080 - Secondary Composition II
- MUCP 4325 - Digital Orchestration
- MUCP 4550 - Sonic-Visual Aesthetics
- MUCP 4560 - Music in Film and Media
- MUCP 4590 - Intermedia Performance Arts

Music for media track, 18 hours

Required, 9 hours

- MUCP 4325 - Digital Orchestration
- MUCP 4550 - Sonic-Visual Aesthetics
- MUCP 4560 - Music in Film and Media

Plus 9 hours of music electives selected from:

- MUAE 3200 - Digital Audio Workstation Techniques
- MUAE 3300 - Techniques of Mixing and Mastering
- MUAE 3400 - Album Making, Pre- to Post-Production
- MUAE 3950 - Commercial Songwriting
- MUCE 4010 - Marketing for Musicians

- MUCE 4020 - Music Leadership and Performing Arts Management
- MUCE 4030 - Music Entrepreneurship Practicum/ Internship
- MUCE 4040 - Music Law and Finance
- MUCE 4050 - Artist Management and Touring
- MUCE 4060 - Beginning Digital Audio Production for Music Entrepreneurs
- MUCE 4070 - Business of Music in Media
- MUCO 2300 - Commercial Music Writing and Production
- MUCO 4000 - Topics in Commercial Music/Production
- MUCP 1180 - Contemporary Materials and Techniques I
- MUCP 2080 - Secondary Composition I
- MUCP 3320 - Instrumentation
- MUCP 4080 - Secondary Composition II
- MUCP 4590 - Intermedia Performance Arts

Business of commercial music track, 18 hours

Required, 6 hours

- MUCE 4010 - Marketing for Musicians
- MUCE 4030 - Music Entrepreneurship Practicum/ Internship

Plus 3 hours selected from:

- MUCE 4020 - Music Leadership and Performing Arts Management
- MUCE 4040 - Music Law and Finance
- MUCE 4050 - Artist Management and Touring

Plus 9 hours of music electives selected from:

- MUAE 3200 - Digital Audio Workstation Techniques
- MUAE 3300 - Techniques of Mixing and Mastering
- MUAE 3400 - Album Making, Pre- to Post-Production
- MUAE 3950 - Commercial Songwriting
- MUCO 2300 - Commercial Music Writing and Production
- MUCO 4000 - Topics in Commercial Music/Production
- MUCP 1180 - Contemporary Materials and Techniques I
- MUCP 2080 - Secondary Composition I
- MUCP 3320 - Instrumentation
- MUCP 4080 - Secondary Composition II
- MUCP 4325 - Digital Orchestration
- MUCP 4550 - Sonic-Visual Aesthetics
- MUCP 4560 - Music in Film and Media
- MUCP 4590 - Intermedia Performance Arts

Other course requirements

PHYS 1270 - Science and Technology of Musical Sound may be used to satisfy a portion of the Life and Physical Sciences requirement of the University Core Curriculum.

General studies electives, 36 hours (15 advanced)

36 credit hours must be from courses outside the College of Music,15 of which must be advanced (3000 level or higher). For specific information see an academic advisor in the College of Music.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
MATH 1580 - Survey of Mathematics with Applications	3 hours	MUCO 1200 - Analysis and Critical Listening in Commercial Music and Music Production	3 hours
MUAE 3100 - Fundamentals of Digital Audio Workstations	3 hours	MUTH 1350 or MUTH 1500 and MUTH 1510	3 hours
MUCO 1000 - Creative Practice in the Music Industry	3 hours	PHYS 1270 - Science and Technology of Musical Sound	3 hours
MUTH 1300 or MUTH 1400 and MUTH 1410	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
MUAE 2100 - Sound Engineering	3 hours	Life and Physical Sciences core	3 hours
MUMH 1610 - Music as Communication	3 hours	Social and Behavioral Sciences core	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	Music Performance elective	1 hour
Music Performance elective	1 hour	Elective	3 hours
Elective - advanced	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	16 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	MUCE 4000 - Music Business and Entrepreneurship	3 hours
Music Literature course	3 hours	MUET 3030 - Music Cultures of the World	3 hours
Music Performance elective	1 hour	Track specific course	3 hours
Track specific course	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective	3 hours
Elective	3 hours		
Total	16 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
MUAE 4500 - Commercial Music Capstone	3 hours	HIST 2620 - United States History Since 1865	3 hours
Track specific course	3 hours	Track specific course - advanced	3 hours
Track specific course - advanced	3 hours	Track specific course - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
		Elective	3 hours
Total	12 hours	Total	15 hours

Composition, BM

Students in the undergraduate program in composition will be expected to demonstrate knowledge and understanding of contemporary repertoire, composers, styles, instrumentation, and electroacoustic/computer music, which are applied through a variety of compositional techniques to produce original compositions. Students completing the program will have a clear sense of the social and cultural context of their work and their place therein. Graduates will be prepared for professional careers in the field or for graduate studies in composition.

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in composition.

Hours required and general/college requirements

A minimum of 129 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Music requirements.

Major requirements

34-37 hours, including:

- MUCP 1180 - Contemporary Materials and Techniques I
- MUCP 1190 - Contemporary Materials and Techniques II
- MUCP 2180 - Intermediate Composition I
- MUCP 2190 - Intermediate Composition II
- MUCP 2200 - Composition Seminar
- MUCP 3180 - Advanced Composition I
- MUCP 3190 - Advanced Composition II
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4180 - Advanced Composition III
- MUCP 4195 - Senior Composition Capstone Project

Plus 6 hours selected from

- MUCP 4320 - Orchestration
- MUCP 4590 - Intermedia Performance Arts to be taken concurrently with
- MUEN 4595 - Intermedia Performance Arts
- MUCP 4685 - Topics in Composition
- MUCP 4690 - Topics in Computer Music Media
- MUCP 4695 - Topics in Contemporary Music

Music history and literature

3 hours from the following courses

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Plus 3 hours selected from

One course selected from the following:

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUJS 3070 - History of Jazz
- a 3000-level or 4000-level MUTH or MUET course
- 4000-level MUMH course

Followed by

- MUAC (1000-level applied concentration) (8)
- MUAC (3000-level applied concentration; any one instrument or voice) (4)
- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)
- MUAG 3800 - Fundamentals of Conducting

- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MULB, Music Laboratory (1000 level) (any music laboratory; 4 must be band, orchestra or choir) (each long term/semester; minimum of 8)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy a portion of the Life and Physical Sciences requirement of the University Core Curriculum)

Theory requirements

21 hours of music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis

Electives

5-8 hours (or as many as needed to complete the requirements for the degree).

Supplemental information

1. Any music major may begin the undergraduate composition program by enrolling in MUCP 1180 - MUCP 1190 (Beginning Composition I and II), which is to be taken either concurrently with or following successful completion of MUTH 1400 - MUTH 1410 or MUTH 1500 - MUTH 1510. Continuation in the program is contingent upon meeting the following requirements:
    a. Completion of the following with no grade lower than a B
        - MUCP 1180 - Contemporary Materials and Techniques I
        - MUCP 1190 - Contemporary Materials and Techniques II
    b. Completion of the following with no grade lower than a B
        - MUTH 1400 - Theory I
        - MUTH 1410 - Aural Skills I
        - MUTH 1500 - Theory II
        - MUTH 1510 - Aural Skills II
    c. Successful completion of the Freshman Barrier Examination (see *Composition Student Handbook* composition.music.unt.edu/composition-handbook);
    d. Acceptance at the concentration level on an instrument or voice;
    e. Continuous enrollment in a music laboratory;
    f. Regular attendance at composition division events; and
    g. Consent of the composition faculty.
2. Only those students who have fulfilled the following requirements by the end of the term/semester they are enrolled in MUCP 2190 will be allowed to major in composition:
    a. Completion of following with no grade lower than B
        - MUCP 2180 - Intermediate Composition I
        - MUCP 2190 - Intermediate Composition II
        - MUTH 2400 - Theory III
        - MUTH 2410 - Aural Skills III
        - MUTH 2500 - Theory IV
        - MUTH 2510 - Aural Skills IV
    b. Successful completion of Upper Divisional Examination;
    c. Successful completion of Piano Proficiency Examination;
    d. Continuous enrollment in concentration instrument/voice with no grade lower than B;
    e. Continuous enrollment in a music laboratory;
    f. Regular attendance at composition division events; and
    g. Composition faculty recommendation of continuation in the program following jury review.
3. Composition majors must meet with the degree program advisor each term/semester until the first 60 hours of course work are completed. It is highly recommended that students continue to meet with the advisor on a regular basis throughout the remainder of the degree program.
4. All students enrolled in composition lessons are expected to attend division events, including concerts, reading sessions, seminars and weekly Music Now departmentals. Failure to attend these events may result in a lower composition lesson grade. This requirement is additional to any other attendance and assigned work expectations of the course. Exceptions must be approved in advance by the composition instructor.
5. Composition majors must achieve a grade of B or better in all required theory and composition courses in order to remain in the program.
6. Students may enroll in no more than one composition lesson each term/semester.
7. Composition majors are expected to present at least one public performance and/or reading of an original composition each semester; this may include Spectrum programs, composer forums, concerts, reading sessions, student recitals, or performances at off-campus venues.
8. Composition degree candidates are to maintain a portfolio that includes completed works, recordings and a record of works and performances. This portfolio is submitted to the composition faculty for evaluation at the senior capstone project hearing.
9. During the senior year a Senior Composition Capstone Project of original work will be presented, the content of which will be determined in consultation with the composition instructor and approved by the composition faculty in a hearing at the beginning end of the term/semester in which prior to that when the senior capstone is presented. The fulfillment of this requirement is contingent upon approval of the senior capstone and portfolio by the composition faculty. Students must be enrolled in MUCP 4195 during the term/semester in which the capstone is presented.
10. Candidates must participate in a music laboratory each long term/semester they are enrolled and must complete a minimum of eight terms/semesters of laboratory requirements, four of which must be in band, orchestra or choir. Any deviation from this plan must be approved by the Associate Dean for Academic Affairs.
11. Candidates must pass the Concentration Proficiency Examination in the principal instrument or voice prior to the senior capstone project hearing.

12. Completion of the University Core Curriculum (42 hours). See "University Core Curriculum requirements." Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) categories of the University Core Curriculum.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2306 and PSCI 2305.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).
    - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.

Proficiency examinations

- Piano Proficiency Examination.
- Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Note

Please refer to the Composition Division website for additional information concerning policies and procedures: https://composition.music.unt.edu/composition-handbook

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MUAG 1011 - Keyboard Skills for Music Majors	1 hour	MUAG 1012 - Keyboard Skills for Music Majors	1 hour
MUCP 1180 - Contemporary Materials and Techniques I	2 hours	MUCP 1190 - Contemporary Materials and Techniques II	2 hours
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Concentration Lower Level Lessons	2 hours
Concentration Lower Level Lessons	2 hours	Ensemble for BA, COMP Majors	1 hour
Ensemble for BA, COMP Majors	1 hour	Music History Elective from Menu	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
MUAG 1013 - Keyboard Skills for Music Majors	1 hour	MUAG 1014 - Keyboard Skills for Music Majors	1 hour
MUCP 2180 - Intermediate Composition I	1 hour	MUCP 2190 - Intermediate Composition II	1 hour
MUCP 2200 - Composition Seminar	1 hour	MUCP 2200 - Composition Seminar	1 hour
MUTH 2400 - Theory III	2 hours	MUTH 2500 - Theory IV	2 hours
MUTH 2410 - Aural Skills III	1 hour	MUTH 2510 - Aural Skills IV	1 hour
Government/Political Science core	3 hours	PHYS 1270 - Science and Technology of Musical Sound	3 hours
Social and Behavioral Sciences core	3 hours	Government/Political Science core	3 hours
Concentration Lower Level Lessons	2 hours	Concentration Lower Level Lessons	2 hours
Ensemble for BA, COMP Majors	1 hour	Ensemble for BA, COMP Majors	1 hour
		Elective	2 hours
Total	15 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
MUCP 3180 - Advanced Composition I	2–3 hours	MUCP 3190 - Advanced Composition II	2–3 hours
MUCP 3320 - Instrumentation	3 hours	MUET 3030 - Music Cultures of the World	3 hours
MUMH 3500 - Music History and Literature to 1750	3 hours	MUMH 3510 - Music History and Literature Since 1750	3 hours
MUTH 3410 - Sixteenth-Century Counterpoint	3 hours	MUTH 3420 - Eighteenth-Century Counterpoint	3 hours
Life and Physical Sciences core	3 hours	Composition MUCP Elective	3 hours
Concentration Upper Level Lessons	2 hours	Concentration Upper Level Lessons	2 hours
Ensemble for BA, COMP Majors	1 hour	Ensemble for BA, COMP Majors	1 hour
Total	18 hours	Total	18 hours

Year 4

Semester 1		Semester 2	
MUAG 3800 - Fundamentals of Conducting	2 hours	MUCP 4195 - Senior Composition Capstone Project	3 hours
MUCP 3670 - Introduction to Electroacoustic Music	3 hours	MUTH 3510 - Form Analysis	3 hours
MUCP 4180 - Advanced Composition III	2–3 hours	American History core	3 hours
American History core	3 hours	Ensemble for BA, COMP Majors	1 hour
Composition MUCP Elective	3 hours	Elective	3 hours
Ensemble for BA, COMP Majors	1 hour	Elective	3 hours
Total	15 hours	Total	16 hours

Critical Studies in Music and Society, BA

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts Degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music Degree Requirements. Some of the courses required for the degree (see below) may be used to satisfy the University Core Curriculum requirements.

Critical studies in music and society (9 hours)

- MUCS 3000 - Seminar in Critical Studies in Music and Society (6 hours)
- MUCS 4000 - Senior Capstone in Critical Studies in Music and Society (3 hours)
- Critical Studies in Music and Society colloquium (to be taken over four semesters)

Music theory (6 hours)

Option A:

- MUTH 1300 - Explorations in Music I
- MUTH 1350 - Explorations in Music II

Option B:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)

Music history/ethnomusicology (18 hours)

Required:

- MUET 3030 - Music Cultures of the World
- MUET 4500 - Introduction to Ethnomusicology
- MUMH 1610 - Music as Communication

Nine hours selected from (six must be advanced):

- MUAG 4200 - Video Games: Behind the Screens
- MUET 2000 - Global Pop: Music, Media, and Society
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUJS 3400 - Understanding and Appreciating Jazz in U.S. and World History and Culture
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750

Music performance (3 hours)

Three hours of MUAC, MUAS, MUEN, MULB, or any combination thereof.

Foreign language (12 hours)

Minimum of 12 hours in the same language, including 6 advanced hours.

Music electives (9-15 hours)

Nine to fifteen hours of electives in music selected in consultation with the program coordinator. Six must be advanced. No more than six hours of electives may be fulfilled by lessons or ensembles (MUAC, MUAS, MUEN, MULB, or any combination thereof). No electives may be used to fulfill the three-hour music performance requirement (see above).

Non-music electives (21-27 hours)

Twenty-one to twenty-seven hours of electives outside music selected in consultation with the program coordinator. Nine must be advanced.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MUCS 3100Z - Critical Studies in Music and Society Colloquium	0 hours	MUCS 3100Z - Critical Studies in Music and Society Colloquium	0 hours
MUMH 1610 - Music as Communication	3 hours	MUET 3030 - Music Cultures of the World	3 hours
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Government/Political Science core	3 hours
BA CSMS theory option 1st semester	3 hours	BA CSMS theory option 2nd semester	3 hours
BA Lang 1 and 2	3 hours	BA Lang 1 and 2	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
MUCS 3100Z - Critical Studies in Music and Society Colloquium	0 hours	MUCS 3100Z - Critical Studies in Music and Society Colloquium	0 hours
PHYS 1270 - Science and Technology of Musical Sound	3 hours	Life and Physical Sciences core	3 hours
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
BA CSMS music performance elective	1 hour	BA CSMS music performance elective	1 hour
BA Lang 3 and 4	3 hours	BA Lang 3 and 4	3 hours
Music Elective - advanced	3 hours	Music Elective - advanced	3 hours
Elective Outside Music	3 hours		
Total	16 hours	Total	13 hours

Year 3

Semester 1		Semester 2	
MUET 4500 - Introduction to Ethnomusicology	3 hours	MUCS 3000 - Seminar in Critical Studies in Music and Society	3 hours
Advanced Language for BA	3 hours	Advanced Language for BA	3 hours
BA-CSMS required class from large list	3 hours	BA CSMS music performance elective	1 hour
Music Elective	3 hours	BA-CSMS required class from large list	3 hours
Music or GS Elective	3 hours	Music or GS Elective	3 hours
		Elective Outside Music	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
MUCS 4000 - Senior Capstone in Critical Studies in Music and Society	3 hours	MUCS 3000 - Seminar in Critical Studies in Music and Society	3 hours
American History core	3 hours	American History core	3 hours
BA-CSMS required class from large list	3 hours	Elective Outside Music	3 hours
Elective Outside Music	3 hours	Elective Outside Music - advanced	3 hours
Elective Outside Music - advanced	3 hours	Elective Outside Music - advanced	3 hours
Total	15 hours	Total	15 hours

Jazz Studies (instrumental, arranging or vocal emphasis), BM

The jazz studies degree's primary purposes are (1) to prepare students for successful careers as jazz performers, composers/arrangers and educators; (2) to cultivate students' knowledge of and appreciation for the jazz tradition and the broader musical traditions from which it has grown; (3) to encourage students' creative efforts, and to share the results of students' efforts on the university, local, regional, national and international levels by means of performances and recordings; and (4) to integrate undergraduate instruction in jazz studies with the rest of the undergraduate curriculum in the College of Music and the university.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

Hours required and general/college requirements

A minimum of 129 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music Degree Requirements.

Major requirements

For certain jazz studies classes that form part of a sequence (e.g. theory or improvisation), a course grade of C or better may be required in order to move to the next course in the sequence. See course descriptions for individual course prerequisites.

- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- MUAC 1500-level applied concentration lessons (2)(2)(2)(2)
- MUAC 3500-level applied jazz concentration lessons (2)(2)(2)
- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCM 3550 - Jazz Chamber Music (1)(1)(1)(1) (Vocal emphasis students take only 2 credits; all others take 4)
- MUET 3030 - Music Cultures of the World
- MUET 3060 - African-American Music
- MUJS 1013 - Keyboard Skills III (for Jazz Studies Majors) or MUAS 1500-level applied secondary lessons (1)
- MUJS 1014 - Keyboard Skills IV (for Jazz Studies Majors) or MUAS 1500-level applied secondary lessons (1)
- MUJS 1131 - Jazz Performance Fundamentals I (Fall only - percussion concentration students to take MUAG 1117 instead; jazz guitar concentration students do not take this course)
- MUJS 1132 - Jazz Performance Fundamentals II (Spring only - jazz guitar concentration students do not take this course)
- MUJS 2360 - Jazz Improvisation I
- MUJS 2370 - Jazz Improvisation II
- MUJS 2400 - Theory III (for Jazz Studies Majors)
- MUJS 2410 - Aural Skills III (for Jazz Studies Majors)
- MUJS 2500 - Theory IV (for Jazz Studies Majors)
- MUJS 2510 - Aural Skills IV (for Jazz Studies Majors)
- MUJS 3070 - History of Jazz
- MUJS 3470 - Jazz Lecture Series (1)(1)
- MUJS 3610 - Jazz Arranging
- MUJS 3620 - Jazz Arranging
- MUJS 3800 - Conducting Jazz Ensembles
- MUJS 4720 - Jazz Senior Recital Capstone
- MUMH 3520 - Issues in Western Music History
- MUTH 1400 - Theory I
- MUTH 1410 - Aural Skills I
- MUTH 1500 - Theory II
- MUTH 1510 - Aural Skills II

Music laboratory

Required each long term/semester for a minimum of 8 hours selected from:

- MULB 1808 - Jazz Lab Band
- MULB 1817 - Jazz Guitar Laboratory
- MULB 1818 - Jazz Repertory Laboratory
- MULB 1819 - Commercial Music Laboratory
- MULB 1820 - Jazz Singers Laboratory
- MULB 1821 - Latin Jazz Lab

Special requirements: arranging emphasis

- MUJS 4610 - Advanced Jazz Arranging
- MUJS 4620 - Advanced Jazz Arranging

Special requirements: instrumental emphasis

- MUJS 3360 - Advanced Jazz Improvisation I
- MUJS 3370 - Advanced Jazz Improvisation II

Special requirements: vocal emphasis

- MUJS 3120 - Vocal Jazz Techniques (2)
- MUJS 3900 - Vocal Pedagogy for Non-Classical Styles
- MUJS 3920 - Songwriting
- MUJS 4120 - Vocal Jazz Styles

Minor

None required.

Electives

9 hours (or as many as needed to complete the requirements for the degree).

Other requirements

- All non-keyboard majors must enroll in Keyboard Skills classes each long term/semester until Jazz Secondary Piano Proficiency is passed.
- Keyboard majors must pass OpenScore/Transposition Exam.
- To enroll in upper division coursework in their emphasis majors must complete MUJS 2370 with a grade of C or higher.
- A minimum 2.75 GPA in all music courses is required.
- Students majoring in jazz studies must also abide by the policies and procedures set forth in the Jazz Studies Student Handbook.
- Students will complete Africana Studies Certificate with HIST 3240, HIST 3250, MUET 3060, and MUJS 3070.

- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum).

Supplemental information

Completion of the University Core Curriculum (required):

See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.

- Communication (6) — ENGL 1310 and ENGL 1320 recommended.
- Mathematics (3) — MATH 1580 recommended.
- Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
- Language, Philosophy and Culture (3) — met by MUET 3030.
- American History (6) — met by HIST 2610 and HIST 2620.
- Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
- Creative Arts (3) — met by MUET 3060.
- Social and Behavioral Sciences (3).
- Core Option/Component Area Option Courses (6) — met by MUJS 3070 and MUMH 3520.
- Proficiency examinations (required):
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Africana Studies certificate (required):

The following courses, which are required for the Bachelor of Music in jazz studies, also meet the criteria for the Africana studies certificate offered through the Department of History:

- HIST 3240 - African American History and Culture to 1865
- HIST 3250 - African American History and Culture Since 1865
- MUET 3060 - African-American Music
- MUJS 3070 - History of Jazz

Therefore, by virtue of completing the requirements for the jazz studies, BM, students will also receive the Africana studies certificate from the Department of History.

Commercial Music minor (optional):

The structure of the jazz studies, BM, allows students to complete the commercial music minor (18 hours) without exceeding the 129 degree hours. The minor is optional but can be pursued within the jazz studies, BM, in the following manner:

- Complete MUAE 3100 - Fundamentals of Digital Audio Workstations (required for the Jazz Studies, BM)
- Use the 9 elective hours within the jazz studies, BM, to complete 3 of the required courses for the commercial music minor:
  - MUAE 3200 - Digital Audio Workstation Techniques
  - MUAE 3950 - Commercial Songwriting, and
  - MUAE 3400 - Album Making, Pre- to Post-Production
- Enroll in at least 3 hours of MULB 1819 - Commercial Music Laboratory (counts towards required 8 hours of MULB credit)
- Students may substitute the jazz studies, BM, capstone requirement (MUJS 4720) for the commercial music minor capstone (MUAE 4500) with approval of the commercial music minor supervisor and the major professor in the Division of Jazz Studies. Students pursuing this substitution will be required to create a solo album or EP as part of MUJS 4720, either in lieu of or in addition to a live recital.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
HIST 3240 - African American History and Culture to 1865	3 hours	HIST 3250 - African American History and Culture Since 1865	3 hours
MUAG 1011 - Keyboard Skills for Music Majors	1 hour	MUAG 1012 - Keyboard Skills for Music Majors	1 hour
MUJS 1131 - Jazz Performance Fundamentals I	2 hours	MUJS 1132 - Jazz Performance Fundamentals II	2 hours
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Life and Physical Sciences core	3 hours	Social and Behavioral Sciences core	3 hours
Concentration Lower Level Lessons	2 hours	Concentration Lower Level Lessons	2 hours
Ensemble for all Jazz	1 hour	Ensemble for all Jazz	1 hour
Total	15 hours	Total	15 hours

Summer 1	
PHYS 1270 - Science and Technology of Musical Sound	3 hours
Life and Physical Sciences core	3 hours
Total	6 hours

Year 2

Semester 1		Semester 2	
MUET 3060 - African-American Music	3 hours	MUJS 1014 - Keyboard Skills IV (for Jazz Studies Majors)	1 hour
MUJS 1013 - Keyboard Skills III (for Jazz Studies Majors)	1 hour	MUJS 2370 - Jazz Improvisation II	2 hours
MUJS 2360 - Jazz Improvisation I	2 hours	MUJS 2500 - Theory IV (for Jazz Studies Majors)	2 hours
MUJS 2400 - Theory III (for Jazz Studies Majors)	2 hours	MUJS 2510 - Aural Skills IV (for Jazz Studies Majors)	1 hour
MUJS 2410 - Aural Skills III (for Jazz Studies Majors)	1 hour	MUJS 3070 - History of Jazz	3 hours
Communication core	3 hours	Communication core	3 hours
Concentration Lower Level Lessons	2 hours	Concentration Lower Level Lessons	2 hours
Ensemble for all Jazz	1 hour	Ensemble for all Jazz	1 hour
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MUAE 3100 - Fundamentals of Digital Audio Workstations	3 hours	MUCM 3550 - Jazz Chamber Music	1 hour
MUCM 3550 - Jazz Chamber Music	1 hour	MUJS 3370 - Advanced Jazz Improvisation II	3 hours
MUJS 3360 - Advanced Jazz Improvisation I	3 hours	MUJS 3470 - Jazz Lecture Series	1 hour
MUJS 3610 - Jazz Arranging	3 hours	MUJS 3620 - Jazz Arranging	3 hours
Government/Political Science core	3 hours	MUMH 3520 - Issues in Western Music History	3 hours
Concentration Upper Level Lessons	2 hours	Government/Political Science core	3 hours
Ensemble for all Jazz	1 hour	Concentration Upper Level Lessons	2 hours
		Ensemble for all Jazz	1 hour
Total	16 hours	Total	17 hours

Year 4

Semester 1		Semester 2	
MUCM 3550 - Jazz Chamber Music	1 hour	MUCM 3550 - Jazz Chamber Music	1 hour
MUET 3030 - Music Cultures of the World	3 hours	MUJS 3470 - Jazz Lecture Series	1 hour
American History core	3 hours	MUJS 3800 - Conducting Jazz Ensembles	2 hours
Concentration Upper Level Lessons	2 hours	MUJS 4720 - Jazz Senior Recital Capstone	3 hours
Ensemble for all Jazz	1 hour	American History core	3 hours
Music History Elective from Menu	3 hours	Ensemble for all Jazz	1 hour
Elective	3 hours	Elective	3 hours
Total	16 hours	Total	14 hours

Music Education (Specialization: Choral–Keyboard or Guitar), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Choral–Keyboard or Guitar

- MUAC 1501 - Piano (applied concentration) (8)

  or
- MUAC 1527 - Guitar (applied concentration) (8)

- MUAC 3501 - Piano (applied concentration) (4)

  or
- MUAC 3527 - Guitar (applied concentration) (4)

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary. Guitar and keyboard majors are required to complete 2 semesters of secondary applied music in an instrument other than their own. Demonstration of proficiency in secondary area is required.)

- MUAG 1102 - High Brass Methods

  or
- MUAG 1202 - Low Brass Methods

- MUAG 1117 - Percussion Class

- MUAG 1121 - Strings Class

  or
- MUAG 1221 - Strings Class

- MUAG 1125 - Flute and Saxophone Methods

  or
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods

- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction
- MUAG 3820 - Choral Conducting
- MUED 4203 - Secondary Choral Methods

7 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Camerata
- MULB 1811 - Accompanying (2) (two semesters required for keyboard concentration)

- MULB 1815 - Chorale
- MULB 1816 - University Singers

Note

One jazz MULB credit may be substituted for one other MULB credit with permission of division. Lab participation is required each long term/semester.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on "Graduation Requirements").
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student's applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, "Graduation Requirements").

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student's area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education

- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra
        - MULB 1809 - Wind Ensemble
        - MULB 1810 - Brass Band
        - MULB 1812 - Marching Band (a minimum of two terms/semesters)
        - MULB 1813 - Concert Band
    2. Orchestra curriculum:
        - MULB 1805 - Orchestra
    3. Choral curriculum:
        - MULB 1801 - A Cappella Choir
        - MULB 1802 - Concert Choir
        - MULB 1803 - Camerata
        - MULB 1815 - Chorale
        - MULB 1816 - University Singers
2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).
    - Core Option/Component Area Option Courses (6)— met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
    - Piano Proficiency Examination.
    - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Music Education (Specialization: Choral–Vocal), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general "Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Choral–Vocal

- MUAC 1503 - Voice (applied concentration) (8)
- MUAC 3503 - Voice (applied concentration) (4)

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary.)

- MUAG 1101 - Introduction to Winds and Percussion Methods

- MUAG 1121 - Strings Class

  or
- MUAG 1221 - Strings Class

- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction
- MUAG 3820 - Choral Conducting
- MUAG 4310 - Science and Pedagogy of Singing
- MUED 4203 - Secondary Choral Methods

7 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Camerata
- MULB 1815 - Chorale
- MULB 1816 - University Singers

Additional requirements

One jazz MULB credit may be substituted for one other MULB credit with permission of division. Lab participation is required each long term/semester.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on "Graduation Requirements").
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student's applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, "Graduation Requirements").

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student's area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra
        - MULB 1809 - Wind Ensemble
        - MULB 1810 - Brass Band
        - MULB 1812 - Marching Band (a minimum of two terms/semesters)
        - MULB 1813 - Concert Band
    2. Orchestra curriculum:
        - MULB 1805 - Orchestra
    3. Choral curriculum:
        - MULB 1801 - A Cappella Choir
        - MULB 1802 - Concert Choir
        - MULB 1803 - Camerata
        - MULB 1815 - Chorale
        - MULB 1816 - University Singers
2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.

- American History (6) — met by HIST 2610 and HIST 2620.
- Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
- Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
- Social and Behavioral Sciences (3).
- Core Option/Component Area Option Courses (6)— met by MUMH 3500 and MUMH 3510.

- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MUAC 1503 - Voice	1–3 hours	MUAC 1503 - Voice	1–3 hours
MUAG 1905 - English and Spanish Diction for Singers	1 hour	MUAG 1909 - Italian Diction	1 hour
MUTH 1400 - Theory I	2 hours	MUED 2310 - Introduction to Music Education	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1500 - Theory II	2 hours
Communication core	3 hours	MUTH 1510 - Aural Skills II	1 hour
Ensemble for Vocal Perf and MUTV	1 hour	Communication core	3 hours
Music History Elective from Menu	3 hours	Ensemble for Vocal Perf and MUTV	1 hour
Piano Group	1 hour	Piano Group	1 hour
Total	14 hours	Total	13 hours

Summer 1	
MUTH 2400 - Theory III	2 hours
MUTH 2410 - Aural Skills III	1 hour
Mathematics core	3 hours
Total	6 hours

Year 2

Semester 1		Semester 2	
MUAC 1503 - Voice	1–3 hours	MUAC 1503 - Voice	1–3 hours
MUAG 1013 - Keyboard Skills for Music Majors	1 hour	MUAG 1014 - Keyboard Skills for Music Majors	1 hour
MUAG 1906 - French Diction	1 hour	MUAG 1101 - Introduction to Winds and Percussion Methods	1 hour
MUED 3100 - Music Education in Childhood	3 hours	MUAG 1907 - German Diction	1 hour
MUET 3030 - Music Cultures of the World	3 hours	MUAG 3800 - Fundamentals of Conducting	2 hours
MUTH 2500 - Theory IV	2 hours	MUED 3200 - Music Education in Adolescence	3 hours
MUTH 2510 - Aural Skills IV	1 hour	PHYS 1270 - Science and Technology of Musical Sound	3 hours
Ensemble for Vocal Perf and MUTV	1 hour	Ensemble for Vocal Perf and MUTV	1 hour
Total	14 hours	Total	14 hours

Summer 2	
American History core	3 hours
American History core	3 hours
Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours
Total	12 hours

Year 3

Semester 1		Semester 2	
MUAC 3503 - Voice	1–3 hours	HDFS 3123 - Child Development for Non-Majors	3 hours
MUAG 1121 - Strings Class	1 hour	MUAC 3503 - Voice	1–3 hours
MUAG 3820 - Choral Conducting	2 hours	MUED 4203 - Secondary Choral Methods	3 hours
MUAG 4310 - Science and Pedagogy of Singing	2 hours	MUMH 3510 - Music History and Literature Since 1750	3 hours
MUMH 3500 - Music History and Literature to 1750	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Ensemble for Vocal Perf and MUTV	1 hour
Ensemble for Vocal Perf and MUTV	1 hour	String Class	1 hour
Elective	3 hours		
Total	17 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
EDCI 3800 - Professional Issues in Teaching	3 hours	EDCI 4148 - Student Teaching for Music Education	3 hours
EDCI 4060 - Content Area Reading	3 hours	EDME 4103 - Student Teaching in Grades 4–8	3 hours
MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction	3 hours		
Ensemble for Vocal Perf and MUTV	1 hour		
MUTV Advanced MUMH Options	3 hours		
Elective	3 hours		
Total	16 hours	Total	6 hours

Music Education (Specialization: Instrumental–Band, Woodwinds, Brass or Percussion), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as “major requirements” and “minor requirements” for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Instrumental–Band, Woodwinds, Brass or Percussion

- MUAC (1000-level applied concentration; any one instrument) (8)
- MUAC (3000-level applied concentration) (4)

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary.)

- MUAG 3870 - Instrumental Conducting
- MUED 4209 - Music Performance: Instrumental
- MULB 1812 - Marching Band (2)

Instrumental methods class, 7 hours from

- MUAG 1102 - High Brass Methods
- MUAG 1117 - Percussion Class

- MUAG 1121 - Strings Class

  or
- MUAG 1221 - Strings Class

- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods

5 hours from

- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Wind Orchestra
- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band

Additional requirements

MULB participation on concentration instrument is required each long term/semester.

One jazz MULB credit may be substituted for one other MULB credit (not including marching band) with permission of division. Lab participation is required each long term/semester.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on "Graduation Requirements").
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student's applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, "Graduation Requirements").

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student's area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra
        - MULB 1809 - Wind Ensemble
        - MULB 1810 - Brass Band
        - MULB 1812 - Marching Band (a minimum of two terms/semesters)
        - MULB 1813 - Concert Band
    2. Orchestra curriculum:
        - MULB 1805 - Orchestra
    3. Choral curriculum:
        - MULB 1801 - A Cappella Choir
        - MULB 1802 - Concert Choir
        - MULB 1803 - Camerata
        - MULB 1815 - Chorale
        - MULB 1816 - University Singers
2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).

- Core Option/Component Area Option Courses (6)—met by MUMH 3500 and MUMH 3510.

- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Music Education (Specialization: Instrumental–Band/Orchestra), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Instrumental–Band/Orchestra

Must interview with music education faculty before declaring the Instrumental—Band/Orchestra track. Declaration may be made after completion of MUED 3100.

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or

- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary.)

- MUAG 1117 - Percussion Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 3870 - Instrumental Conducting

- MUAS 1504 - Violin (2 hours of secondary strings lessons. Not on primary instrument)

  or

- MUAS 1505 - Viola (2 hours of secondary strings lessons. Not on primary instrument)

  or

- MUAS 1506 - Cello (2 hours of secondary strings lessons. Not on primary instrument)

  or

- MUAS 1507 - Double Bass (2 hours of secondary strings lessons. Not on primary instrument)

- MULB 1812 - Marching Band (2)
- MUAC (1000-level applied concentration; any one instrument) (8)
- MUAC (3000-level applied concentration) (4)

5 hours from

- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Wind Orchestra
- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1813 - Concert Band

Other requirements

One jazz MULB credit may be substituted for one other MULB credit as long as students have at least 2 marching band and 2 choir credits, with permission of division chair.

Harp students will take both MUAG 1121 and/or MUAG 1221 on the MUED degree plan. In addition, harp students will replace one brass class (MUAG 1102 or MUAG 1202) and one woodwinds class (MUAG 1125 or MUAG 1225) with a minimum of 2 semesters of secondary lessons on a bowed string instrument. In order to determine the specific number of high and/or low bowed string secondary lessons that will be necessary, the MUED string faculty member in conjunction with a music education faculty committee will complete an internal check of high and low string competence prior to MUED 4000-level course enrollment.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as "major requirements" and "minor requirements" for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on "Graduation Requirements").
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student's applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, "Graduation Requirements").

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student's area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra
        - MULB 1809 - Wind Ensemble
        - MULB 1810 - Brass Band
        - MULB 1812 - Marching Band (a minimum of two terms/semesters)
        - MULB 1813 - Concert Band
    2. Orchestra curriculum:
        - MULB 1805 - Orchestra
    3. Choral curriculum:
        - MULB 1801 - A Cappella Choir
        - MULB 1802 - Concert Choir
        - MULB 1803 - Camerata
        - MULB 1815 - Chorale
        - MULB 1816 - University Singers
2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).
    - Core Option/Component Area Option Courses (6)— met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
    - Piano Proficiency Examination.
    - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Music Education (Specialization: Instrumental–Elementary), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as “major requirements” and “minor requirements” for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)

- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Instrumental–Elementary

- Declaration after MUED 3100.
- Must interview with music education faculty before declaring the instrumental–elementary track
- MUAC (1000-level applied concentration; any one instrument) (8)
- MUAC (3000-level applied concentration) (4)

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary.)

- MUAG 1117 - Percussion Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 3870 - Instrumental Conducting
- MUAS 1503 - Voice (1000-level secondary) (2)
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MULB 1812 - Marching Band (2)

4 hours from

Excluding major instrument.

- MUAG 1102 - High Brass Methods
- MUAG 1121 - Strings Class
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1221 - Strings Class
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods

2 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Camerata
- MULB 1815 - Chorale
- MULB 1816 - University Singers

3 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Camerata
- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Wind Orchestra
- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1813 - Concert Band
- MULB 1815 - Chorale
- MULB 1816 - University Singers

Additional requirements

One jazz MULB credit may be substituted for one other MULB credit as long as students have at least 2 marching band and 2 choir credits, with permission of division chair.

Harp students will take both MUAG 1121 and/or MUAG 1221 on the MUED degree plan. In order to determine the specific number of high and/or low bowed string secondary lessons that will be necessary, the MUED string faculty member in conjunction with a music education faculty committee will complete an internal check of high and low string competence prior to MUED 4000-level course enrollment.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as “major requirements” and “minor requirements” for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on “Graduation Requirements”).
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student’s applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, “Graduation Requirements”).

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student’s area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra

- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1812 - Marching Band (a minimum of two terms/semesters)
- MULB 1813 - Concert Band

2. Orchestra curriculum:
   - MULB 1805 - Orchestra
3. Choral curriculum:
   - MULB 1801 - A Cappella Choir
   - MULB 1802 - Concert Choir
   - MULB 1803 - Camerata
   - MULB 1815 - Chorale
   - MULB 1816 - University Singers

2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6)— met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Music Education (Specialization: Instrumental–Orchestra), BM

The Division of Music Education at the University of North Texas is dedicated to empowering students through learning opportunities that are contextual and relevant to a career in teaching. To become an effective music educator, each student must commit to excellence in both teaching and musicianship.

Click here to view the general Bachelor of Music requirements within the College of Music section.

Degree requirements

The following requirements must be satisfied for a Bachelor of Music with a major in general, choral and instrumental music (teacher certification).

Hours required and general/college requirements

A minimum of 128 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

A minimum grade of C is required for all courses listed as “major requirements” and “minor requirements” for the Bachelor of Music with a major in general, choral and instrumental music.

64-70 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Introduction to Music Education
- MUED 3100 - Music Education in Childhood
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Music history, 3 hours

3 hours from the following courses:

- MUAG 4050 - Symphonic Literature of the Wind Band
- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUET 3050 - Music of Africa
- MUET 3060 - African-American Music
- MUET 3070 - Studies in Asian Music
- MUET 3080 - Studies in Latin-American Music
- MUET 3090 - Music of India and Pakistan
- MUET 4500 - Introduction to Ethnomusicology

- MUJS 3070 - History of Jazz
- MUMH 4000 - Seminar in Music History

Music communication and literature, 3 hours

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Instrumental–Orchestra

- MUAC (1000-level applied concentration) (8)
- MUAC (3000-level applied concentration; any one instrument) (4)

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary.)

- MUAG 1102 - High Brass Methods

  or
- MUAG 1202 - Low Brass Methods

- MUAG 1117 - Percussion Class

- MUAG 1121 - Strings Class (restricted section only)

  or
- MUAG 1221 - Strings Class (restricted section only)

- MUAG 1125 - Flute and Saxophone Methods

  or
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods

- MUAG 1224 - Voice Class for Music Majors
- MUAG 3870 - Instrumental Conducting

- MUAS 1504 - Violin (2 hours of secondary strings lessons not on primary instrument)

  or
- MUAS 1505 - Viola (2 hours of secondary strings lessons not on primary instrument)

  or
- MUAS 1506 - Cello (2 hours of secondary strings lessons not on primary instrument)

  or
- MUAS 1507 - Double Bass (2 hours of secondary strings lessons not on primary instrument)

- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4209 - Music Performance: Instrumental
- MULB 1805 - Orchestra (minimum of 7)

Lab participation is required each long term/semester.

Additional requirements

One jazz MULB credit may be substituted for one other MULB credit with permission of the division chair. Harp students will take two semesters of MUAG 1121 and/or MUAG 1221 (restricted sections only) on the MUED degree plan. In order to determine the specific number of high and/or low bowed string secondary lessons that will be necessary, the MUED string faculty member in conjunction with a music education faculty committee will complete an internal check of high and low string competence prior to MUED 4000-level course enrollment.

Other course requirements

- EDCI 4060 - Content Area Reading
- PHYS 1270 - Science and Technology of Musical Sound

Minor requirements

A minimum grade of C is required for all courses listed as “major requirements” and “minor requirements” for the Bachelor of Music with a major in general, choral and instrumental music.

18 hours in music and education, including:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors
- MUED 3200 - Music Education in Adolescence

Additional requirements

Choral–keyboard or guitar students also take MUED 4103. Instrumental and instrumental–elementary students also take MUED 4109. For all other tracks, an additional 3 hours are required in consultation with an advisor.

Electives

As many as needed to complete the degree.

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Those students who choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see section on “Graduation Requirements”).
- Candidates must pass the Concentration Proficiency Exam in the principal instrument or voice.
- Instrumental–elementary students must pass the Secondary Voice Proficiency.

Supplemental information

This program is designed to prepare students for entry into the music teaching profession and related career areas. The curriculum emphasizes public school teacher competencies in music performance, literature and pedagogy. This degree program also leads to Texas teacher certification in all-level music.

Students majoring in general, choral and instrumental music must minor in education and complete a minimum of 12 hours of applied music in one concentration and 2 hours in the secondary applied field.

The curriculum is designed to develop teacher knowledge and skills as a public school general music teacher, choral director, band director or orchestra director. It is recommended that the student’s applied music concentration be appropriate to the intended teaching specialty (voice for the general music and choral areas and band/orchestral instrument for the instrumental areas). Those students who

choose a keyboard or guitar concentration must take the secondary voice/instrument appropriate to the intended teaching area and qualify for participation in the appropriate music laboratory (see subsequent section, "Graduation Requirements").

When the student has completed the 12-semester-hour requirement in the applied concentration, the Applied Music Examining Committee in the student's area of concentration decides if any additional hours are required.

Admission to teacher education

Students apply formally after completing 60 semester hours with a minimum grade point average of 2.75, including sufficient progress toward degree.

Additional requirements

Students must present acceptable admissions scores at the time of application. See the College of Education section for further information about admission to teacher education.

Student teaching program

The student must meet the following requirements prior to student teaching.

College of Music

The student must earn no grade lower than C in each required music course and have an overall 2.75 grade point average. Completion of:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting

  or
- MUAG 3870 - Instrumental Conducting
- MUED 3100 - Music Education in Childhood
- MUED 3200 - Music Education in Adolescence
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods
- MUED 4209 - Music Performance: Instrumental
- Two 4000-level MUED courses from the below list, according to specified track (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)

7 hours selected from

- MUAG 1102 - High Brass Methods
- MUAG 1202 - Low Brass Methods
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Flute and Saxophone Methods
- MUAG 1225 - Clarinet, Oboe and Bassoon Methods
- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction

College of Education

Students must complete the requirements of the State of Texas for teacher certification as listed in the College of Education, including 12 hours of courses and student teaching:

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4148 - Student Teaching for Music Education
- EDME 4103 - Student Teaching in Grades 4–8
- HDFS 3123 - Child Development for Non-Majors

Additional requirements

- The student must be within 6 semester hours (including only University Core Curriculum requirements) of completing degree course work.
- By midterm of the term/semester prior to student teaching, the student must file student-teaching application forms.
- Before filing student-teaching application forms, the student must have passed the Piano Proficiency Examination, Conducting Proficiency Examination (or equivalent course credit), Instrumental Proficiency Examinations or Voice Proficiency Examination, and Concentration Proficiency Examination.

Students should refer to the College of Education section in this catalog for further information regarding student teaching programs.

Graduation requirements

Candidates for graduation must complete all of the following laboratory requirements. Any deviation must be approved by the associate dean for academic affairs.

1. All students whose applied music concentration is in a band/orchestral instrument or voice participate in music laboratories appropriate to their intended teaching area each term/semester in residence.
    1. Band curriculum:
        - MULB 1806 - Wind Symphony
        - MULB 1807 - Wind Orchestra
        - MULB 1809 - Wind Ensemble
        - MULB 1810 - Brass Band
        - MULB 1812 - Marching Band (a minimum of two terms/semesters)
        - MULB 1813 - Concert Band
    2. Orchestra curriculum:
        - MULB 1805 - Orchestra
    3. Choral curriculum:
        - MULB 1801 - A Cappella Choir
        - MULB 1802 - Concert Choir
        - MULB 1803 - Camerata
        - MULB 1815 - Chorale
        - MULB 1816 - University Singers
2. All students whose applied music concentration is in piano or organ participate a minimum of two terms/semesters in MULB 1811 - Accompanying, with remaining laboratories to be in their intended teaching area (as shown above in 1) each long term/semester.

Additional information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.

- Communication (6) — ENGL 1310 and ENGL 1320 recommended.
- Mathematics (3) — MATH 1580 recommended.
- Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
- Language, Philosophy and Culture (3) — met by MUET 3030.
- American History (6) — met by HIST 2610 and HIST 2620.
- Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
- Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
- Social and Behavioral Sciences (3).
- Core Option/Component Area Option Courses (6)— met by MUMH 3500 and MUMH 3510.

- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Music, BA

Students completing the Bachelor of Arts with a major in music will have developed a strong understanding of music history, literature and theory. Musicianship skills will have been developed to a level commensurate with a liberal arts degree. The curriculum serves as a basis for advanced degrees in non-performance areas of music.

Degree requirements

Students pursuing a Bachelor of Arts with a major in music should consult their advisor about core requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

52 hours of music including:

- MUAG 1013 - Keyboard Skills for Music Majors and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)
- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- 8 hours in applied music, concentration level (MUAC)
- 6 hours of MULB enrollment

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Music history and ethnomusicology, 9 hours

- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)

Advanced music electives, 9 hours

9 credit hours in music, all of which must be advanced. For specific information see an academic advisor in the College of Music.

Required senior music class

Take 3 hours from the following list:

- A 3000- or 4000-level MUTH or MUET course

  or
- A 4000-level MUMH courses

  or
- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz

Foreign language requirement, 6 hours

Minimum of 6 hours in the same language.

General studies electives, 30 hours (15 advanced)

30 credit hours of courses must be from courses outside the College of Music, 15 of which must be advanced (3000 level or higher). For specific information see an academic advisor in the College of Music.

Minor

Optional, but the degree is designed with the flexibility for students to earn a minor.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/

Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.

- Communication (6) — ENGL 1310 and ENGL 1320 recommended.
- Mathematics (3) — MATH 1580 recommended.
- Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
- Language, Philosophy and Culture (3) — met by MUET 3030.
- American History (6) — met by HIST 2610 and HIST 2620.
- Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
- Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
- Social and Behavioral Sciences (3).
- Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.

- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MUAG 1011 - Keyboard Skills for Music Majors or Elective	1 hour	MUAG 1012 - Keyboard Skills for Music Majors or Elective	1 hour
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Concentration Lower Level Lessons	2 hours
Concentration Lower Level Lessons	2 hours	Ensemble for BA	1 hour
Ensemble for BA	1 hour	Music Communication and Literature Elective	3 hours
Total	13 hours	Total	13 hours

Year 2

Semester 1		Semester 2	
MUAG 1013 - Keyboard Skills for Music Majors	1 hour	MUAG 1014 - Keyboard Skills for Music Majors	1 hour
MUTH 2400 - Theory III	2 hours	MUTH 2500 - Theory IV	2 hours
MUTH 2410 - Aural Skills III	1 hour	MUTH 2510 - Aural Skills IV	1 hour
PHYS 1270 - Science and Technology of Musical Sound	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
BA Lang	3 hours	BA Lang	3 hours
Concentration Lower Level Lessons	2 hours	Concentration Lower Level Lessons	2 hours
Ensemble for BA	1 hour	Ensemble for BA	1 hour
Total	16 hours	Total	16 hours

*Completion of Piano Proficiency and Upper Division Exam

Year 3

Semester 1		Semester 2	
MUMH 3500 - Music History and Literature to 1750	3 hours	MUET 3030 - Music Cultures of the World	3 hours
Life and Physical Sciences core	3 hours	MUMH 3510 - Music History and Literature Since 1750	3 hours
Ensemble for BA	1 hour	Ensemble for BA	1 hours
Music Elective - advanced	3 hours	Music Elective - advanced	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	16 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Required Senior Music Course	3 hours	Elective	3 hours
Music Elective - advanced	3 hours	Elective - advanced	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Performance (specialization: Harpsichord), BM

The purpose of the Bachelor of Music with a major in performance and specialization in harpsichord is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of being a musician/performer; to increase students' preparedness to apply upon graduation for continued study in graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through participation in performances, lectures/master classes, national and international competitions, and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 132 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

33 hours, including:

- MUAG 4410 - Harpsichord Literature and Pedagogy
- MUAG 4420 - Harpsichord Literature and Pedagogy
- MUAG 4711 - Keyboard Senior Recital
- MUAM 1528 - Harpsichord (12)
- MUAM 3528 - Harpsichord (12)

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Other required courses

- MUAG 3800 - Fundamentals of Conducting
- MUCE 4000 - Music Business and Entrepreneurship
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MULB, Music Laboratory (1000 level) (any music laboratory) (each long term/semester, minimum of 8)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum)

Foreign language

- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French

  or
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German

Music theory requirements

18 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis

Advanced electives in music

Choose 3 hours from the following courses:

- MUAG 3230 - Keyboard Improvisation
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3090 - Class Composition
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz
- A 3000- or 4000-level MUTH or MUET course
- A 4000-level MUMH or MUAG literature course

Electives

12 hours (or as many as needed to complete the requirements for the degree), 4 of which must be in music, and 1 of which must be advanced.

Other requirements

- Presentation of a junior recital; content approved in advance by faculty.
- Demonstration of proficiency in continuo playing in a variety of styles by public performance totaling at least one hour.
- Attendance at all area recitals is required. Unexcused absences will result in the final applied major course grade being lowered. For additional information, consult the divisional and area handbooks.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Open Score/Transposition (OS/T) Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Performance (specialization: Orchestral Instruments - Multiple Woodwinds), BM

The purpose of the Bachelor of Music with a major in performance and a specialization in orchestral instruments–multiple woodwinds is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of the performance profession; to increase students' preparedness to apply upon graduation for continued study in master's graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena as performers and teachers; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through student participation in external performances, lectures/master classes and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)

- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 123 hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

40 hours, including:

- MUAM (1000-level applied major) (8)
- MUAM (3000-level applied major) (6)
- MUAC (1000-level applied concentration) (instrument two) (4)
- MUAC (1000-level applied concentration) (instrument three) (4)
- MUAC (1000-level applied concentration) (instrument four) (4)
- MUAC (1000-level applied concentration) (instrument five) (4)
- MUAG 4360 - Instrumental Pedagogy and Repertoire

  or
- MUAG 4370 - Instrumental Pedagogy and Repertoire
- MUAG 4710 - Instrumental Studies Senior Recital
- MUCM 3520 - Woodwind Chamber Music (4)

Other required courses

- MUAG 1013 - Keyboard Skills for Music Majors and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)
- MUAG 3800 - Fundamentals of Conducting
- MUET 3030 - Music Cultures of the World (may be used to satisfy a portion of the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum)

Music laboratory

Required each long term/semester, a minimum of 8 hours from:

- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Wind Orchestra
- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band

Music communication and literature

May be used to satisfy the Creative Arts requirement of the University Core Curriculum. 3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics

Music Theory

15 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)

- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3510 - Form Analysis

Required senior music classes

- MUTH 3420 - Eighteenth-Century Counterpoint

Choose 3 hours from the following courses:

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3180 - Advanced Composition I
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz
- A 3000 or 4000-level MUTH or MUET course
- A 4000-level MUMH or MUAG literature course

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. For specific information, see an academic advisor in the College of Music.

Other requirements

All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed. Sixteen hours are required in one principal (major) instrument and 4 hours in each of the remaining four (concentration) woodwind instruments for a total of 32 hours.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAM).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
MUAG 1011 - Keyboard Skills for Music Majors or Elective	1 hour	MUAG 1012 - Keyboard Skills for Music Majors or Elective	1 hour
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Music Communication and Literature Selection	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Applied Lesson	2 hours	Applied Lesson	2 hours
Instrument 2	2 hours	Instrument 2	2 hours
Large Ensemble	1 hour	Large Ensemble	1 hour
Total	15 hours	Total	15 hours

Summer 1	
MATH 1580 - Survey of Mathematics with Applications	3 hours
MUAG 4360 - Instrumental Pedagogy and Repertoire	3 hours
Total	6 hours

Year 2

Semester 1		Semester 2	
MUAG 1013 - Keyboard Skills for Music Majors	1 hour	MUAG 1014 - Keyboard Skills for Music Majors	1 hour
MUTH 2400 - Theory III	2 hours	MUET 3030 - Music Cultures of the World	3 hours
MUTH 2410 - Aural Skills III	1 hour	MUTH 2500 - Theory IV	2 hours
PHYS 1270 - Science and Technology of Musical Sound	3 hours	MUTH 2510 - Aural Skills IV	1 hour
Applied Lesson	2 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
Instrument 3	2 hours	Applied Lesson	2 hours
Large Ensemble	1 hour	Instrument 3	2 hours
Elective	3 hours	Large Ensemble	1 hour
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
MUAG 3800 - Fundamentals of Conducting	2 hours	MUCM 3520 - Woodwind Chamber Music	1 hour
MUCM 3520 - Woodwind Chamber Music	1 hour	MUMH 3500 - Music History and Literature to 1750	3 hours
Life and Physical Sciences core	3 hours	MUTH 3510 - Form Analysis	3 hours
Applied Lesson- upper level	2 hours	Applied Lesson - upper level	2 hours
Instrument 4	2 hours	Instrument 4	2 hours
Large Ensemble	1 hour	Large Ensemble	1 hour
Total	14 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
MUCM 3520 - Woodwind Chamber Music	1 hour	MUAG 4710 - Instrumental Studies Senior Recital	3 hours
MUMH 3510 - Music History and Literature Since 1750	3 hours	MUCM 3520 - Woodwind Chamber Music	1 hour
Social and Behavioral Sciences core	3 hours	MUTH 3420 - Eighteenth-Century Counterpoint	3 hours
Applied Lesson - upper level	2 hours	Required Senior Music Course	3 hours
Instrument 5	2 hours	Instrument 5	2 hours
Large Ensemble	1 hour	Large Ensemble	1 hour
Elective	3 hours		
Total	15 hours	Total	13 hours

Performance (specialization: Orchestral Instruments), BM

The purpose of the Bachelor of Music with a major in performance and a specialization in orchestral instruments is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of the performance profession; to increase students' preparedness to apply upon graduation for continued study in master's graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena as performers and teachers; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through student participation in external performances, lectures/master classes and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 121 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Music requirements.

Major requirements

36 hours, including:

- MUAM (1000-level applied major) (12)
- MUAM (3000-level applied major) (12)

- MUAG 4360 - Instrumental Pedagogy and Repertoire

  or
- MUAG 4370 - Instrumental Pedagogy and Repertoire (may be offered only in summer)

- MUAG 4710 - Instrumental Studies Senior Recital

Chamber music, 6 hours

Note: percussion majors may use MUCM 3617; harp majors may use MUCM 3630; guitar majors must take two credit hours of MUAG 3130 in addition to MUCM 3621 to fulfill this 6-hour requirement; substitutions may result in needing to add additional advanced hours.

- MUCM 3510 - String Chamber Music
- MUCM 3520 - Woodwind Chamber Music
- MUCM 3530 - Brass Chamber Music
- MUCM 3540 - Percussion Chamber Music
- MUCM 3560 - Mixed Ensemble Chamber Music

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Other required courses

- MUAG 1013 - Keyboard Skills for Music Majors and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)

- MUAG 3800 - Fundamentals of Conducting
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum)

Music laboratory, each long term/semester, minimum of 8 hours from

Note: MULB 1805 is specified for majors in violin, viola, cello and double bass. MULB 1825 is specified for majors in classical guitar.

- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Wind Orchestra
- MULB 1809 - Wind Ensemble
- MULB 1810 - Brass Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band
- MULB 1825 - Classical Guitar Laboratory

Music theory

15 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3510 - Form Analysis

Advanced electives in music

Choose 6 hours from the following courses:

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3090 - Class Composition
- MUCP 3320 - Instrumentation
- MUCP 4695 - Topics in Contemporary Music
- MUCP 3670 - Introduction to Electroacoustic Music
- MUJS 3070 - History of Jazz
- A 3000- or 4000-level MUTH or MUET course
- A 4000-level MUMH or MUAG literature course

Electives

9 hours (or as many as needed to complete the requirements for the degree).

Other requirements

All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.

Woodwind instruments

Students who specialize in woodwinds are required to take MUTH 3420 as one of their two advanced electives in music.

- MUTH 3420 - Eighteenth-Century Counterpoint

Stringed instruments (violin, viola, cello, double bass)

- A minimum of eight terms/semesters of MULB 1805 - Orchestra each long term/semester.
- A minimum of 2 hours in a performance versatility requirement chosen from:
  1. a secondary stringed instrument,
  2. orchestral repertoire,
  3. applied lessons on a baroque instrument.
- Preparation of two programs of representative works from classical, romantic, and contemporary styles. The equivalent of one-half recital must be given the junior year and a full recital in the senior year.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Performance (specialization: Organ), BM

The purpose of the Bachelor of Music with a major in performance and specialization in organ is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of being a musician/performer; to increase students' preparedness to apply upon graduation for continued study in graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through participation in performances, lectures/master classes, national and international competitions, and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 130 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

40 hours, including:

- MUAG 4380 - Organ Literature and Pedagogy (3)
- MUAG 4711 - Keyboard Senior Recital (3)
- MUAG 4720 - Organ Service Playing I
- MUAG 4730 - Organ Service Playing II
- MUAG 4740 - Seminar in Church Music (6)
- MUAM 1502 - Organ (12)
- MUAM 3502 - Organ (12)

Other required courses

- MUAG 3800 - Fundamentals of Conducting
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MULB, Music Laboratory (1000-level) (choral laboratory recommended) (each long term/semester, minimum of 8)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy a portion of the Life and Physical Sciences requirement of the University Core Curriculum)

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Music theory requirements

18 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)

- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis

Advanced theory/composition electives

Choose 3 hours from the following courses:

- MUCP 3090 - Class Composition
- MUCP 3320 - Instrumentation
- MUTH 3410 - Sixteenth-Century Counterpoint

Advanced electives in music (3 hours)

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz
- A 3000- or 4000-level MUTH or MUET course
- A 4000-level MUMH or MUAG literature course
- MUMH 4000-level seminar in music history

Electives

7 hours (3 of which must be advanced) or as many as needed to complete the requirements for the degree.

Other requirements

- Presentation of a junior recital; content approved in advance by faculty.
- Demonstration of proficiency in performance equivalent to the Service Playing Examination of the American Guild of Organists.
- Organ majors must perform one major work from memory on the degree recital.
- Attendance at all area departmental recitals is required. Unexcused absences will result in the final applied major course grade being lowered. For additional information, consult the divisional and area handbooks.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 or recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).
    - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Other requirements
    - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Performance (specialization: Organ, Church Music Emphasis), BM

The purpose of the Bachelor of Music with a major in performance and a specialization in organ with an emphasis in church music is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of being a musician/ performer; to increase students' preparedness to apply upon graduation for continued study in graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through participation in performances, lectures/master classes, national and international competitions, and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 129 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

38 hours, including:

- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting
- MUAG 4380 - Organ Literature and Pedagogy
- MUAG 4711 - Keyboard Senior Recital
- MUAG 4720 - Organ Service Playing I
- MUAG 4730 - Organ Service Playing II
- MUAG 4740 - Seminar in Church Music (6)
- MUAM 1502 - Organ (12)
- MUAM 3502 - Organ (6)

Other required courses

- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MULB, Music Laboratory (1000 level) (choral laboratory recommended) (each long term/semester, minimum of 8)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy a portion of the Life and Physical Sciences requirement of the University Core Curriculum)

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (May be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Music theory

15 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3420 - Eighteenth-Century Counterpoint

Advanced electives in theory/ composition

Choose 3 hours from the following courses:

- MUCP 3090 - Class Composition
- MUCP 3320 - Instrumentation
- MUCP 4695 - Topics in Contemporary Music
- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3510 - Form Analysis

Advanced electives in music

Choose 3 hours from the following courses:

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz
- a 3000- or 4000-level MUTH or MUET course
- a 4000-level MUMH or MUAG literature course

Electives

18 hours (or as many as needed to complete the requirements for the degree).

Other requirements

- Presentation of a junior recital; content approved in advance by faculty.
- This option with church music emphasis is available to students who wish to prepare for careers as church musicians.

- Demonstration of proficiency in performance at a level equivalent to the Service Playing Examination of the American Guild of Organists.
- Attendance at all area recitals is required. Unexcused absences will result in the final applied major course grade being lowered. For additional information, consult the divisional and area handbooks.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
    - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
    - Mathematics (3) — MATH 1580 or recommended.
    - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
    - Language, Philosophy and Culture (3) — met by MUET 3030.
    - American History (6) — met by HIST 2610 and HIST 2620.
    - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
    - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
    - Social and Behavioral Sciences (3).
    - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Other requirements:
    - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Performance (specialization: Piano), BM

The purpose of the Bachelor of Music with a major in performance and specialization in piano is: to provide students with the tools necessary to develop their technique and musicianship through the study and performance of music from various periods and genres; to familiarize students with various aspects of being a musician/performer; to increase students' preparedness to apply upon graduation for continued study in graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry upon graduation into the professional arena; to encourage students to investigate an expanded array of professional opportunities in the field of music; and to prepare students for professional careers in music through participation in performances, lectures/master classes, national and international competitions, and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 129 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements

36 hours including:

- MUAG 3260 - Piano Literature
- MUAG 3270 - Piano Literature

- MUAG 4160 - Elementary Piano Pedagogy
- MUAG 4170 - Intermediate Piano Pedagogy
- MUAG 4711 - Keyboard Senior Recital
- MUAM 1501 - Piano (12)
- MUAM 3501 - Piano (9)

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (May be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Other required courses

- MUAG 3800 - Fundamentals of Conducting
- MUCE 4000 - Music Business and Entrepreneurship
- MUCM 3510 - String Chamber Music (2)
- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MULB 1811 - Accompanying (each long term/semester, minimum of 8)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum)

Music theory requirements

18 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis

Advanced electives in music

Choose 3 hours from the following courses:

- MUAE 3100 - Fundamentals of Digital Audio Workstations
- MUAG 3230 - Keyboard Improvisation
- MUAG 3240 - Techniques of Piano Accompanying
- MUCE 4000 - Music Business and Entrepreneurship
- MUCP 3090 - Class Composition
- MUCP 3320 - Instrumentation
- MUCP 3670 - Introduction to Electroacoustic Music
- MUCP 4695 - Topics in Contemporary Music
- MUJS 3070 - History of Jazz
- A 3000- or 4000-level MUTH or MUET course
- A 4000-level MUMH or MUAG literature course

Electives

13 hours (or as many as needed to complete the requirements for the degree), 3 hours of which must be in music and 2 of which must be advanced.

Other requirements

- Presentation of a junior recital; content approved in advance by faculty.
- Attendance at all area departmental recitals is required. Unexcused absences will result in the final applied major course grade being lowered. For additional information, consult the divisional and area handbooks.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 or recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Open Score/Transposition (OS/T) Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MUAM 1501 - Piano	1–5 hours	MUAM 1501 - Piano	1–5 hours
MULB 1811 - Accompanying	1 hour	MULB 1811 - Accompanying	1 hour
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Communication core	3 hours	Communication core	3 hours
Mathematics core	3 hours	Music History Elective from Menu	3 hours
Secondary Lessons	1 hour	Secondary Lessons	1 hour
Total	14 hours	Total	14 hours

Summer 1	
American History core	3 hours
American History core	3 hours
Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours
Total	12 hours

Year 2

Semester 1		Semester 2	
MUAG 3260 - Piano Literature	3 hours	MUAG 3270 - Piano Literature	3 hours
MUAM 1501 - Piano	1–5 hours	MUAM 1501 - Piano	1–5 hours
MULB 1811 - Accompanying	1 hour	MULB 1811 - Accompanying	1 hour
MUTH 2400 - Theory III	2 hours	MUTH 2500 - Theory IV	2 hours
MUTH 2410 - Aural Skills III	1 hour	MUTH 2510 - Aural Skills IV	1 hour
PHYS 1270 - Science and Technology of Musical Sound	3 hours	Social and Behavioral Sciences core	3 hours
Government/Political Science core	3 hours		
Total	16 hours	Total	13 hours

Year 3

Semester 1		Semester 2	
MUAG 4160 - Elementary Piano Pedagogy	3 hours	MUAG 4170 - Intermediate Piano Pedagogy	3 hours
MUAM 3501 - Piano	1–5 hours	MUAM 3501 - Piano	1–5 hours
MULB 1811 - Accompanying	1 hour	MUCM 3510 - String Chamber Music	1 hour
MUMH 3500 - Music History and Literature to 1750	3 hours	MULB 1811 - Accompanying	1 hour
MUTH 3510 - Form Analysis	3 hours	MUTH 3420 - Eighteenth-Century Counterpoint	3 hours
Elective	3 hours	Elective	3 hours
Total	16 hours	Total	14 hours

Year 4

Semester 1		Semester 2	
MUAG 3800 - Fundamentals of Conducting	2 hours	MUAG 4711 - Keyboard Senior Recital	3 hours
MUAM 3501 - Piano	1–5 hours	MUCE 4000 - Music Business and Entrepreneurship	3 hours
MUCM 3510 - String Chamber Music	1 hour	MUET 3030 - Music Cultures of the World	3 hours
MULB 1811 - Accompanying	1 hour	MULB 1811 - Accompanying	1 hour
MUMH 3510 - Music History and Literature Since 1750	3 hours	Elective	2 hours
Music Elective - advanced	3 hours		
Total	13 hours	Total	12 hours

Performance (specialization: Voice), BM

The purpose of the Bachelor of Music with a major in performance and a specialization in voice is: to provide students with training which will develop their native vocal talent; to develop their musicianship through the study and performance of music from various periods and genres; to prepare students to apply for continued study in master's graduate performance degrees at the highest quality institutions and to help especially gifted students prepare for immediate entry into the professional arena as performers and teachers; to encourage students to investigate an expanded array of professional opportunities in the field of music; to expose students to successful individuals who are working as performers, teachers, coaches, and as professional agents through periodic master classes held on our campus; and to prepare students for professional careers in music through student participation in external performances, lectures/master classes and cultural exchanges.

Program Requirements

Bachelor of Music

General requirements for the Bachelor of Music as specified in the University Core Curriculum requirements in the Degree and Program Requirements section of this catalog and under Bachelor of Music in the College of Music Degree Requirements .

Major in Performance

The following choices are available under performance:

- Piano (performance)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments
- Strings: violin, viola, cello and double bass
- Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone, euphonium, horn and tuba
- Percussion
- Harp
- Classical Guitar

General requirements for majors in Performance

Students who have not fulfilled the following requirements at the beginning of the fifth term/semester are not allowed to major in applied music.

Completion of at least 60 semester hours with an average of C or better.

Completion of

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

Graduation requirements for majors in Performance

1. Completion of 20–32 hours in the major instrument/voice (the number of hours varies according to the instrument).
2. Completion of 6–16 hours supplementing the major instrument (literature, pedagogy, diction, chamber music, advanced conducting).
3. Demonstration of proficiency in solo playing in public recitals, and in ensemble and chamber music, as appropriate.
4. Presentation of all senior recital capstone requirements, content approved in advance and public performance graded by faculty. All proficiencies (including piano and the Upper Division Examination) must be met the semester before applying for the senior recital capstone.
5. Completion of 6–12 hours in upper-level MUTH, MUMH, MUAG, MUET, MUCE, MUCP and/or MUJS. Credit hours and courses vary by performance area.
6. Other music and general elective hours (see program outlines below for specific recommendations).
7. A total of 121–132 hours are required.

Hours required and general/college requirements

A minimum of 130 hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Music degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Music requirements.

Major requirements, 34 hours

- MUAG 1905 - English and Spanish Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction
- MUAG 3800 - Fundamentals of Conducting
- MUAG 4210 - Vocal Literature
- MUAG 4250 - Topics in Vocal Literature
- MUAG 4300 - Science and Pedagogy of Singing
- MUAG 4712 - Voice Senior Recital
- MUAM 1503 - Voice (8)
- MUAM 3503 - Voice (9)
- MUEN 3040 - Opera Theatre (2)

Music theory

15 hours in music theory, including:

- MUTH 1400 - Theory I (or credit by exam)
- MUTH 1410 - Aural Skills I (or credit by exam)
- MUTH 1500 - Theory II (or credit by exam)
- MUTH 1510 - Aural Skills II (or credit by exam)
- MUTH 2400 - Theory III (or credit by exam)
- MUTH 2410 - Aural Skills III (or credit by exam)
- MUTH 2500 - Theory IV (or credit by exam)
- MUTH 2510 - Aural Skills IV (or credit by exam)

- MUTH 3410 - Sixteenth-Century Counterpoint

  or
- MUTH 3420 - Eighteenth-Century Counterpoint

Music communication and literature

3 hours from the following courses:

- MUMH 1610 - Music as Communication
- MUMH 2050 - Sounds and Cinema
- MUMH 2060 - History of Rock
- MUMH 3100 - Music, Gender, Sexuality
- MUMH 3200 - Music as Politics (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Followed by

- MUET 3030 - Music Cultures of the World (may be used to satisfy the Language, Philosophy and Culture requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)
- MUMH 3510 - Music History and Literature Since 1750 (may be used to satisfy a portion of the Component Area Options requirement of the University Core Curriculum)

Advanced Music History requirement

3 hours from the following courses:

- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUAG 4225 - Oratorio Repertoire and Practicum

Other required courses

- MUAG 1013 - Keyboard Skills for Music Majors

  and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived by successful completion of the Piano Proficiency Exam upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)

- MUCE 4000 - Music Business and Entrepreneurship
- PHYS 1270 - Science and Technology of Musical Sound (may be used to satisfy the Life and Physical Sciences requirement of the University Core Curriculum)

Foreign language

- FREN 1010 - Elementary French
- GERM 1010 - Elementary German
- ITAL 1010 - Elementary Italian

Music laboratory

Vocal performance majors are required to enroll in a music laboratory each long term/semester, a minimum of 8 hours from:

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Camerata
- MULB 1815 - Chorale
- MULB 1816 - University Singers

All vocal performance majors must complete a choir placement audition for the academic year and participate in a choir determined by the choral studies faculty through the eighth semester of study. Students will remain in the ensemble into which they placed for the entire academic year, pending the ensemble director's approval or graduation.

Beginning with the ninth semester, assuming the mandated eight semesters of auditioned choral MULB participation has been completed for the degree, vocal performance majors may instead enroll in one of the following MULB/MUEN to fulfill the MULB requirement, **pending approval of the director for each lab or ensemble.**

- MULB 1811 - Accompanying
- MULB 1820 - Jazz Singers Laboratory
- MUEN 2626 - Mariachi Aguilas
- MUEN 3040 - Opera Theatre
- MUEN 4530 - Early Music Ensembles
- MUEN 4585 - Nova Ensemble
- MUEN 4595 - Intermedia Performance Arts

For the purposes of planning, students returning for a ninth semester will be asked, at the end of the eighth semester, to notify the Director of Choral Studies if they do not plan to return to their current auditioned choir.

Senior Vocal Requirement

Choose an additional 3 hours from the list below (may require more than one class):

- MUAG 4070 - Operatic Literature I
- MUAG 4072 - Operatic Literature II
- MUAG 4220 - Operatic Acting
- MUAG 4225 - Oratorio Repertoire and Practicum
- MUAG 4250 - Topics in Vocal Literature
- MUEN 3040 - Opera Theatre

Electives

9 hours (or as many as needed to complete the requirements for the degree).

Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Prior to the fifth term/semester, the student must have completed diction courses in English, Italian, German and French, and one year of foreign language (see degree outline, in this section).
- Presentation of a junior recital (one-half length).
- Presentation of a senior recital that includes at least one piece in English, German, French and Italian, and an aria from opera or oratorio.

Supplemental information

- Completion of the University Core Curriculum (42 hours). See University Core Curriculum requirements. Some courses required on degree plans may be used to fulfill requirements under Communication, Mathematics, Life and Physical Sciences, American History, Government/ Political Science, Creative Arts, Language, Philosophy and Culture, Social and Behavioral Sciences and Core Option (Component Area Option) Courses.
  - Communication (6) — ENGL 1310 and ENGL 1320 recommended.
  - Mathematics (3) — MATH 1580 recommended.
  - Life and Physical Sciences (6) — met by PHYS 1270 and an additional laboratory science course.
  - Language, Philosophy and Culture (3) — met by MUET 3030.
  - American History (6) — met by HIST 2610 and HIST 2620.
  - Government/Political Science (6) — met by PSCI 2305 and PSCI 2306.
  - Creative Arts (3) — met by MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100 or MUMH 3200.
  - Social and Behavioral Sciences (3).
  - Core Option/Component Area Option Courses (6) — met by MUMH 3500 and MUMH 3510.
- Proficiency examinations:
  - Piano Proficiency Examination.
  - Successful completion of the Upper Division Examination in applied lessons (MUAC and MUAM).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ITAL 1010 - Elementary Italian	3 hours	FREN 1010 - Elementary French	3 hours
MUAG 1905 - English and Spanish Diction for Singers	1 hour	MUAG 1909 - Italian Diction	1 hour
MUAM 1503 - Voice	1–5 hours	MUAM 1503 - Voice	1–5 hours
MUTH 1400 - Theory I	2 hours	MUTH 1500 - Theory II	2 hours
MUTH 1410 - Aural Skills I	1 hour	MUTH 1510 - Aural Skills II	1 hour
Communication core	3 hours	Ensemble for Vocal Perf and MUTV	1 hour
Ensemble for Vocal Perf and MUTV	1 hour	Music History Elective from menu	3 hours
Piano Group	1 hour	Piano Group	1 hour
Total	14 hours	Total	14 hours

Summer 1	
Communication core	3 hours
Government/Political Science core	3 hours
Mathematics core	3 hours
Social and Behavioral Sciences core	3 hours
Total	12 hours

Year 2

Semester 1		Semester 2	
GERM 1010 - Elementary German	3 hours	MUAG 1014 - Keyboard Skills for Music Majors	1 hour
MUAG 1013 - Keyboard Skills for Music Majors	1 hour	MUAG 4250 - Topics in Vocal Literature	2 hours
MUAM 1503 - Voice	1–5 hours	MUAM 1503 - Voice	1–5 hours
MUTH 2400 - Theory III	2 hours	MUTH 2500 - Theory IV	2 hours
MUTH 2410 - Aural Skills III	1 hour	MUTH 2510 - Aural Skills IV	1 hour
Government/Political Science core	3 hours	PHYS 1270 - Science and Technology of Musical Sound	3 hours
Ensemble for Vocal Perf and MUTV	1 hour	Ensemble for Vocal Perf and MUTV	1 hour
Vocal Performance Diction Options	1 hour	Vocal Performance Diction Options	1 hour
		Elective	2 hours
Total	14 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MUAG 3800 - Fundamentals of Conducting	2 hours	MUAM 3503 - Voice	1–5 hours
MUAM 3503 - Voice	1–5 hours	MUCE 4000 - Music Business and Entrepreneurship	3 hours
MUEN 3040 - Opera Theatre	1 hour	MUEN 3040 - Opera Theatre	1 hour
MUMH 3500 - Music History and Literature to 1750	3 hours	MUET 3030 - Music Cultures of the World	3 hours
Life and Physical Sciences core	3 hours	MUMH 3510 - Music History and Literature Since 1750	3 hours
Ensemble for Vocal Perf and MUTV	1 hour	Ensemble for Vocal Perf and MUTV	1 hour
Vocal Performance MUTH Options	3 hours		
Total	16 hours	Total	14 hours

Year 4

Semester 1		Semester 2	
MUAG 4300 - Science and Pedagogy of Singing	3 hours	MUAG 4210 - Vocal Literature	3 hours
MUAM 3503 - Voice	1–5 hours	MUAG 4712 - Voice Senior Recital	3 hours
American History core	3 hours	American History core	3 hours
Ensemble for Vocal Perf and MUTV	1 hour	Ensemble for Vocal Perf and MUTV	1 hour
Vocal Perf Elective	3 hours	Advanced Music History option	3 hours
Elective	2 hours	Elective	3 hours
Total	15 hours	Total	16 hours

Minors

Commercial Music minor

Practical skills of commercial artistry: live performance, songwriting, recording and production skills.

Music Theory, 3 hours

- MUTH 1300 - Explorations in Music I

  or
- MUTH 1400 - Theory I and
- MUTH 1410 - Aural Skills I

Digital Audio, 3 hours

- MUAE 3100 - Fundamentals of Digital Audio Workstations

Music Business, 3 hours

- MUCE 4000 - Music Business and Entrepreneurship

Choose from list below, 9 hours

Up to 3 credit hours total may come from MULB options by audition.

- MUCO 1000 - Creative Practice in the Music Industry
- MUCO 1200 - Analysis and Critical Listening in Commercial Music and Music Production
- MUCO 2300 - Commercial Music Writing and Production
- MUAE 2100 - Sound Engineering
- MUAE 3200 - Digital Audio Workstation Techniques
- MUAE 3300 - Techniques of Mixing and Mastering
- MUAE 3400 - Album Making, Pre- to Post-Production
- MUAE 3950 - Commercial Songwriting
- Options by audition: MULB 18XX Music laboratories

Music minor

For a first minor in music, students must complete a minimum of 18 hours, 6 of which must be advanced, representing theory, piano, music history and music electives.

Minimum hours in each area are as follows: theory, 6 semester hours credit (MUTH 1300 and MUTH 1350); class piano, 2 semester hours credit (MUAG 1001 and MUAG 1002 or placement in the piano sequence by passing appropriate placement tests); 6 semester hours credit in music history (MUMH 3000, MUMH 3010, MUMH 3100, or MUMH 3200); additional music electives, 4 semester hours credit (may include courses with the following UNT course prefixes: MUAE, MUAG, MUCE, MUCM, MUET, MUGC, MUJS, MUAC, MUAM, MUAS, MUCP, MUED, MUEN, MUMH, MULB, MUTH).

Students may elect to take credit by exam (CBE) for some or all of the theory credits required on the music minor. With theory area approval, students may substitute 6 credits of music-major theory courses (MUTH 1400, MUTH 1410, MUTH 1500, MUTH 1510, MUTH 2400, MUTH 2410, MUTH 2500, MUTH 2510) in place of non-major courses (MUTH 1300, MUTH 1350).

Music Theory minor

The Minor in Music Theory is designed for music majors who are interested in further exploring the theoretical and analytical bases of music. The purpose of the minor is to provide students with a solid and well-rounded foundation in understanding, analyzing and comparing the melodic, harmonic and formal structures of the styles of Western music, and to prepare students for advanced study at the master's and doctoral level in music history.

Eligibility

Undergraduates with the following majors may pursue a minor in music theory:

- Composition, BM
- General, Choral and Instrumental Music (teacher certification), BM
- Jazz Studies (instrumental, arranging or vocal emphasis), BM
- Music, BA
- Performance (specialization: Harpsichord), BM
- Performance (specialization: Orchestral Instruments - Multiple Woodwinds), BM
- Performance (specialization: Orchestral Instruments), BM
- Performance (specialization: Organ), BM
- Performance (specialization: Organ, Church Music Emphasis), BM
- Performance (specialization: Piano), BM
- Performance (specialization: Voice), BM

Requirements

A successful application to be submitted after the completion of MUTH 2400. See mhte.music.unt.edu for submission guidelines.

18 hours from

- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis
- MUTH 4370 - Schenkerian Analysis
- MUTH 4520 - Twentieth-Century Techniques
- MUTH 4920 - Advanced Colloquium in Music Theory

College of Public Affairs and Health Sciences

Main Office
Chilton Hall, Room 289

Mailing address:
1155 Union Circle #311340
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940-565-2239
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PAHS Undergraduate Advising
Chilton Hall, Room 112

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Fax: 940-565-2352

Nicole Dash, Dean
Jody Sundt, Academic Associate Dean, School of Public Affairs
Jakob Vingren, Associate Dean, School of Health Sciences
Tristan Wu, Associate Dean for Research

Faculty

The College Public Affairs and Health Sciences prepares graduates to address diverse and complex social issues such as aging, disability, disaster management and recovery, criminal justice, health disparities and public safety, and find solutions to challenges in public administration, public health, exercise physiology and urban design.

We have eight academic departments with undergraduate and graduate programs, the Kristin Farmer Autism Center, the Center for Public Management, the UNT Speech and Hearing Center, the UNT Work Inclusion and Supported Employment (UNTWISE) program, UNT ELEVAR, and several professional development and clinical training programs to facilitate careers to address a global society.

Fields of study include alternative dispute resolution, audiology, behavior analysis, criminal justice, emergency administration and planning, gerontology, nonprofit studies, public administration, public health, rehabilitation, social work, speech-language pathology, and urban policy and planning.

Degree programs in the College of Public Affairs and Health Sciences require specific courses contained in parts of the University Core Curriculum (see University Core Curriculum in the Degree and Program Requirements section of this catalog) to satisfy degree requirements. Students may consult academic advisors for a list of required courses. Students may be required to take extra courses if they fail to take these courses.

Academic advising

Students who select a major leading to an undergraduate degree within the College of Public Affairs and Health Sciences should contact PAHS Undergraduate Advising to schedule an appointment at pahs.unt.edu/advising.

Advisors help students select courses and answer questions concerning degree plans, application of transfer credit, individual career needs, and general academic requirements, policies, and procedures.

Programs of study

The college offers undergraduate programs in the following areas:

- Bachelor of Arts
- Bachelor of Science
- Bachelor of Social Work

Degree requirements and the University Core Curriculum

Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree requirements and core requirements should consult an academic advisor.

Bachelor of Arts

Candidates for the Bachelor of Arts must meet the following requirements:

1. Hours required and general/college requirements: a minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences Degree Requirements.
2. Major requirements: completion of all requirements for a major as specified by the respective department.
3. Other course requirements: see individual program.
4. Minor requirements: completion of all requirements for a minor as specified by the respective department.
5. Electives: varies with individual program. Any approved UNT courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 42 hours of advanced-level course work.
6. Other requirements: at least 24 hours of upper-division work in residence.

Bachelor of Science

Requirements for the Bachelor of Science degree include the following:

1. Hours required and general/college requirements: a minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences Degree Requirements.
2. Major requirements: completion of all requirements for a major as specified by the respective department.
3. Other course requirements: see individual program.
4. Minor requirements: a minor, where required, of not fewer than 18 hours, including 6 hours of advanced work.
5. Electives: varies with individual program. Any approved UNT courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 42 hours of advanced-level course work.
6. Other requirements: at least 24 hours of upper-division work in residence.

Bachelor of Social Work

Requirements for the Bachelor of Social Work degree include the following:

1. Hours required and general/college requirements: a minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Social Work degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences Degree Requirements.
2. Major requirements: completion of all requirements for a major as specified by the respective department.
3. Other course requirements: see individual program.
4. Minor requirements: completion of all requirements for a minor as specified by the respective department.
5. Electives: any approved UNT courses the student and advisor deem appropriate to the degree may be selected. Caution must be exercised to ensure the student fulfills the university requirement of 42 hours of advanced-level course work.

6. Other requirements: at least 24 hours of upper-division work in residence.

Special programs

UNT ELEVAR Inclusive Post-Secondary Program

UNT ELEVAR (Empower, Learn, Excel, enVision, Advance, Rise) is a four-year inclusive postsecondary education program for students with intellectual disability (ID). Following the definition of the program's name, ELEVAR [lift, soar, rise, in Spanish], the program's vision is to empower young adults with ID who wish to continue postsecondary education (PSE) to become self-determined, independent, and healthy adults readied for integrated competitive employment. The UNT ELEVAR program has received U.S. Department of Education Comprehensive Transition Program Accreditation.

Program Contact:

Brenda L. Barrio, PhD
UNT ELEVAR Inclusive Post-Secondary Program (Project Lead)
Rehabilitation and Health Services Department
College of Public Affairs and Health Sciences
University of North Texas https://elevar.unt.edu

Certified Transition Program Certificate

Fully admitted UNT ELEVAR students who fulfill all the requirements below will earn the Certified Transition Program Certificate (CTP) from the Department of Education.

Certificate requirements

The ELEVAR certificate requires the completion of 48 credit hours of course work earned with a grade of pass.

Course work, 48 hours of zero-credit courses

Zero-credit courses will include modified assignments tied to both course content and specific career and or life goals. Course of study (48-hour program) will be individually determined in relation to student goals. Satisfactory academic progress will be measured by performance on individually modified assignments.

Internships

Minimum of eight (8) supervised internships related to career goal. Internships can be paid or non-paid. Every internship must last no less than six-weeks and can be completed in one or more inclusive and competitive employment setting.

Workshops, 32 hours

UNT ELEVAR Program semester-long seminar workshops. Semester-long workshops will include assignments tied to course content, career goals, and life goals. Course of study (32-hour program) will be required for all students in the program. Satisfactory academic progress will be measured by performance on individually modified assignments. Additional workshops can be accessed by the student if needed.

Portfolio

Student portfolio of accomplishments is required for completion of the program. Portfolio will include examples of assignments or projects for courses taken; projects for classes/workshops; examples of skills obtained through internships; and may also include examples of leadership or service-learning activities on campus or in the community, extra-curricular involvement, etc.

Career Certificate

In addition to the CTP certificate, fully admitted UNT ELEVAR students may select to earn a UNT Career Certificate. This certificate is available only to students enrolled in the UNT ELEVAR program. Only UNT ELEVAR students who are admitted and fulfill all the requirements below will earn the Career Certificate from the University of North Texas.

UNT ELEVAR Career Certificate

UNT ELEVAR has one certificate with five career emphases. Students select one career emphasis:

1. Arts and Communication
2. Business
3. Public Service, Health and Education
4. Sport and Hospitality
5. STEM

The UNT ELEVAR Career Certificate is designed to ready students to enter the workforce and develop pathways to meaningful careers. The UNT Career Certificate is completed during the UNT ELEVAR four-year academic program. The following are core courses that are required for the UNT Career Certificate and the courses must be satisfactorily completed for the Certificate to be awarded.

Core required courses for UNT ELEVAR Career Certificate

- Health and Sex Education I and II (completion during the freshman year) - equivalent to 6 credit hours
- COMM 1010 - Introduction to Communication (completion during the freshman year) - equivalent to 3 credit hours
- Financial Literacy (completion during the freshman year) - equivalent to 3 credit hours
- UCAR 1000Z - Career Readiness Seminar I (completion during the freshman year) - equivalent to 3 credit hours
- Independent Living I and II (completion during the sophomore year) - equivalent to 3 hour each (6 hours total)
- Self-Advocacy (completion during the junior year) - equivalent to 3 credit hours
- Community Engagement (completion during the junior year) - equivalent to 3 credit hours
- Senior Seminar I and II (completion during the senior year) - equivalent to 3 credit hours each (6 hours total)
- UCAR 2000Z - Career Readiness Seminar II (completion during the senior year) - equivalent to 3 credit hours
- Internships I, II, III, and IV (completion of I and II during the sophomore year and III and IV during the junior year) - equivalent to 3 credit hours each (12 hours total)
- Advanced Career Internships I and II (completion during the senior year) - equivalent to 3 credit hours each (6 hours total)

Additional requirements for UNT ELEVAR Career Certificate

In addition to core requirements, UNT ELEVAR students seeking the UNT ELEVAR Career Certificate will satisfactorily complete six (6), 3-hour academic courses for their specific UNT ELEVAR Career Certificate emphasis. These academic courses are selected by the UNT academic discipline faculty, UNT ELEVAR academic advisors, and workforce coordinators to prepare students for careers and employment in their chosen career emphasis. These academic courses are UNT academic courses offered face-to-face, hybrid or online as designed and approved by the academic department for 3 hours of credit.

Minors

Nutrition minor

The interdisciplinary minor in nutrition would benefit students interested in pursuing careers in food, wellness, hospitality, public health, and other health-related professions.

The minor in nutrition requires 18 hours.

Required courses, 12 hours

- NUTR 2460 - Introduction to Nutrition Science
- NUTR 3560 - Life Cycle Nutrition
- NUTR 3660 - Community Nutrition

Select one of the following:

- ANTH 2300 - Culture and Society
- EDEM 1600 - Introduction to Global Event Management
- HLTH 1100 - School and Community Health Problems and Services
- HLTH 1900 - Principles of Health
- HMGT 1500 - Orientation to the Hospitality Industry
- PUBH 1010 - Introduction to Public Health

Elective courses, 6 hours

Select two of the following:

- ANTH 4520 - Food, Culture and Globalization
- EDEM 4200 - Sustainability in the Event Industry
- HLTH 4600 - Behavioral Change Strategies in Health Promotion
- NUTR 3460 - Healthy Sustainable Meals
- KINE 3030 - Fundamentals of Sport Nutrition
- PUBH 3020 - Community Health Education

Department of Audiology and Speech-Language Pathology

Main Departmental Office
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Erin C. Schafer, Chair

Faculty

The disciplines of audiology and speech-language pathology emphasize the scientific study of human auditory-verbal communication with reference to disorders involving hearing, language and speech. The emphasis of the department is to provide an educational and research setting where students learn models and theories of normal communicative function and appropriate rationale, techniques and procedures for the evaluation and management of people with hearing, language and speech disorders.

In addition to classroom instruction in the area of normal and disordered communication, the department maintains a clinical facility for students to acquire practical observation and experience through clinical services offered to clients by the UNT Speech and Hearing Center. Concomitant research labs are integral to the learning process of students.

Programs of study

Programs offered by the department are listed below.

The BS degree in audiology and speech-language pathology offers an avenue for students to obtain licensure in Texas as an assistant in audiology or assistant in speech-language pathology and pursue graduate degrees in speech-pathology, audiology or other health professions, including teaching, psychology, medicine, gerontology, etc. An assistant has a limited scope of practice and is under the supervision of a licensed and certified speech-language pathologist or audiologist. The master's degree in speech-language pathology is required for licensure in Texas and for clinical certification by the American Speech-Language-Hearing Association (ASHA) to practice as a speech-language pathologist. A doctoral degree in audiology is required for licensure in Texas and for clinical certification by ASHA to be an audiologist.

The program provides basic preparation in the normal development and functioning of speech, language and hearing, and introductory courses concerned with communication disorders. Undergraduates are introduced to the clinical aspects of speech-language pathology and audiology through course work, clinical experiences and laboratory work at the University of North Texas Speech and Hearing Center. All course selections must be approved by an undergraduate advisor or the department chair.

UNT Speech and Hearing Center

The UNT Speech and Hearing Center is open throughout the year for services to all UNT students and the public. The center provides professional evaluation and remediation of disorders of articulation, fluency, language and voice. Services also include hearing testing, fitting hearing aids and hearing protection devices, and aural rehabilitation for persons with hearing loss or other auditory disorders.

Majors

Audiology and Speech-Language Pathology, BS

A Bachelor of Science with a major in audiology/speech-language pathology gives a person the skills needed to assess and treat people with speech, language and hearing disorders, through a curriculum centered on practical experience.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog.

Major requirements, 39 hours

Completion of at least 39 hours including:

- ASLP 2015 - Nature of Communication Disorders *
- ASLP 2020 - Phonetics *
- ASLP 3010 - Clinical Methods in Audiology and Speech-Language Pathology I
- ASLP 3025 - Anatomical Bases of Speech and Hearing
- ASLP 3030 - Speech and Hearing Sciences
- ASLP 3035 - Language Development
- ASLP 3040 - Introduction to Audiology
- ASLP 4035 - Speech Sound Disorders
- ASLP 4040 - Introduction to Language Disorders
- ASLP 4045 - Basic Rehabilitative Audiology
- ASLP 4050 - Neurological Bases of Speech and Hearing
- ASLP 4060 - Clinical Methods in Audiology and Speech-Language Pathology II
- ASLP 4070 - Topics in Speech-Language Pathology and Audiology

Supporting courses, 12 hours

Students pursuing a BS in Audiology and Speech-Language Pathology must complete the following courses, which also satisfy a requirement of the University Core Curriculum. MATH 1680, BIOL 1112, and PHYS 1270 or PHYS 1315 must be completed with a grade of C or higher before enrolling in ASLP 3030 and subsequent numbered courses.

- MATH 1680 - Elementary Probability and Statistics
- BIOL 1112 - Contemporary Biology
- PHYS 1270 - Science and Technology of Musical Sound

  or
- PHYS 1315 - Introduction to the World of Physics
- TECM 2700 - Technical Writing

Additional requirements

As described in the minor section below, students majoring in audiology and speech-language pathology are required to complete a minor of 18 semester credit hours.

Foreign language

Attain 2040 and 2050 level in one foreign language or pass appropriate proficiency exams through the Department of World Languages, Literatures and Cultures (Arabic, American Sign Language, Chinese, French, German, Hebrew, Italian, Japanese, Latin, Portuguese, Russian or Spanish).

Minor

Student may choose a pre-defined minor from another discipline,

or

Select 18 hours of advisor-approved courses that complement the student's career interest. This can include an interdisciplinary specialization in Global Disorders, Child, Adult, Speech-Language Pathology Assistant, or Lifespan. Courses will be selected in consultation with the student's academic advisor.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

Major should be declared and degree audit prepared with the ASLP Advisor in the PAHS Advising Office.

To graduate with a major in audiology and speech-language, a student must:

- Maintain a GPA of 2.5 in the major.
- Earn a grade of C or better in all ASLP courses. Students earning less than a C in any one of the ASLP courses will be allowed to retake that course only once.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ASLP 2015 - Nature of Communication Disorders	3 hours	ASLP 2020 - Phonetics	3 hours
BIOL 1112 - Contemporary Biology	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	TECM 2700 - Technical Writing	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ASLP 3010 - Clinical Methods in Audiology and Speech-Language Pathology I	3 hours	ASLP 3030 - Speech and Hearing Sciences	3 hours
ASLP 3025 - Anatomical Bases of Speech and Hearing	3 hours	American History core	3 hours
American History core	3 hours	Component Area Option A or B core	3 hours
Elementary Foreign Language I core	3 hours	Elementary Foreign Language II core	3 hours
PHYS 1270 or PHYS 1315	3 hours	ASLP minor/specialization	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Creative Arts core	3 hours	ASLP 3040 - Introduction to Audiology	3 hours
Intermediate Foreign Language I core	3 hours	ASLP 4060 - Clinical Methods in Audiology and Speech-Language Pathology II	3 hours
ASLP 3035 - Language Development	3 hours	Intermediate Foreign Language II core	3 hours
Component Area Option A or B core	3 hours	ASLP minor/specialization	3 hours
ASLP minor/specialization	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ASLP 4035 - Speech Sound Disorders	3 hours	ASLP 4040 - Introduction to Language Disorders	3 hours
ASLP 4045 - Basic Rehabilitative Audiology	3 hours	ASLP 4050 - Neurological Bases of Speech and Hearing	3 hours
ASLP minor/specialization	3 hours	ASLP 4070 - Topics in Speech-Language Pathology and Audiology	3 hours
ASLP minor/specialization	3 hours	ASLP minor/specialization	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Audiology and Speech-Language Pathology, BS with grad track option leading to Speech-Language Pathology, MS

Admission requirements

The Grad Track in Speech-Language Pathology program provides an academic and clinical professional education to prepare you as a clinician working in educational and medical settings. In the Grad Track program, in lieu of undergraduate classes and/or electives, you will begin taking graduate courses the senior year of your undergraduate studies.

Applicants must meet the following criteria to apply to the Grad Track program:

1. Be in their junior year of undergrad to apply
2. Have a minimum of 75 completed semester credit hours
3. Have a GPA of 3.5 or higher

See department website (pahs.unt.edu/academics/aslp-bs.) for specific information about the application and deadlines.

Email aslpadvising@unt.edu for questions about the Grad Track program.

Course Requirements, 12 hours

- ASLP 5780 - Diagnostics Speech Pathology in lieu of ASLP 4070 - Topics in Speech-Language Pathology and Audiology
- ASLP 5825 - Pediatric Speech Sound Disorders in lieu of ASLP 4035 - Speech Sound Disorders
- ASLP 5830 - Language Disorders I in lieu of ASLP 4040 - Introduction to Language Disorders
- ASLP 5835 - Language Disorders II

All remaining courses required for the Audiology and Speech-Language Pathology, BS must also be completed.

Minors

Audiology and Speech-Language Pathology minor

Minors must observe the system of prerequisites for courses.

The Audiology and Speech-Language Pathology Undergraduate Director is available for consultation on the minor in audiology and speech-language pathology.

Courses

A minor in audiology and speech-language pathology requires a total of 18 semester hours from the following:

- ASLP 2015 - Nature of Communication Disorders
- ASLP 2020 - Phonetics
- ASLP 3010 - Clinical Methods in Audiology and Speech-Language Pathology I
- ASLP 3025 - Anatomical Bases of Speech and Hearing
- ASLP 3030 - Speech and Hearing Sciences
- ASLP 3035 - Language Development
- ASLP 3040 - Introduction to Audiology
- ASLP 4035 - Speech Sound Disorders
- ASLP 4040 - Introduction to Language Disorders
- ASLP 4045 - Basic Rehabilitative Audiology
- ASLP 4050 - Neurological Bases of Speech and Hearing

Department of Behavior Analysis

Main Office
Chilton Hall, Room 360

Mailing address:
1155 Union Circle #310919
Denton, TX 76203-5017
940-565-2274
Web site: pahs.unt.edu/behv

Karen Rader Toussaint, Chair

Faculty

The department offers a major in applied behavior analysis and a minor in behavior analysis for students interested in learning to apply behavioral principles to produce positive change in individual behavior and social systems.

The department promotes a humanistic application of behavioral principles through consultation with area agencies and institutions. The department offers students experience in laboratory and applied research and practical experience in the application of behavior technology.

Majors

Applied Behavior Analysis, BS

People with a BS in applied behavior analysis are competitive for positions in a variety of fields. These jobs generally involve working directly with client populations or helping more experienced behavior analysts to analyze and modify behavior to improve individual or organizational outcomes, often in settings such as education, healthcare, business, or human services.

Candidates for the Bachelor of Science with a major in applied behavior analysis must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

Completion of 37 semester hours, including 34 required credit hours and 3 hours of Behavior Analysis electives.

Behavior Analysis Core, 34 hours

- BEHV 2300 - How Behavior Works
- BEHV 2800 - Pre-Practicum in Applied Behavior Analysis
- BEHV 3300 - Organizational Behavior Management
- BEHV 3440 - Data Collection and Analysis
- BEHV 3550 - Behavior Change Techniques
- BEHV 3660 - Analyzing Behavior: Single Subject Methods
- BEHV 3770 - Building Skills with Behavior Technology
- BEHV 3800 - Practicum in Applied Behavior Analysis
- BEHV 4300 - Ethical and Professional Issues in Applied Behavior Analysis
- BEHV 4650 - Basic Science of Behavior
- BEHV 4680 - Behavioral Assessment
- BEHV 4750 - Capstone Course in Applied Behavior Analysis

Behavior Analysis Electives, 3 hours

Select at least one additional BEHV elective.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Public Affairs and Health Sciences.

Minor

A minor of 18 hours is optional. Minors considered likely to give graduates of the program a competitive edge include, but are not limited to, audiology, speech-language pathology, aging, anthropology, biological sciences, business foundations, chemistry, computer science, criminal justice, emergency administration, health promotion, library and information sciences, rehabilitation and sociology.

Other requirements

- Minimum GPA of 2.7 in behavior analysis courses.
- At least 30 hours must be completed at UNT.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your degree in four years. Variations will depend on prerequisites, exams or dual enrollment credit, and individual planning.

Year 1

Semester 1		Semester 2	
BEHV 2300 - How Behavior Works	3 hours	American History core	3 hours
American History core	3 hours	Communication core	3 hours
Communication core	3 hours	Language, Philosophy and Culture core	3 hours
Component Area Option B core	3 hours	Mathematics core	3 hours
Creative Arts core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
BEHV 3300 - Organizational Behavior Management	3 hours	BEHV 3660 - Analyzing Behavior: Single Subject Methods	3 hours
BEHV 3440 - Data Collection and Analysis	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Life and Physical Sciences core	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
BEHV 3550 - Behavior Change Techniques	3 hours	BEHV 3770 - Building Skills with Behavior Technology	3 hours
BEHV 2800 - Pre-Practicum in Applied Behavior Analysis	1 hour	BEHV 3800 - Practicum	3 hours
Elective	3 hours	BEHV 4300 - Ethics and Professionalism in ABA	3 hours
Elective	3 hours	BEHV Elective	3 hours
Elective	2 hours	Elective - advanced	3 hours
Elective - advanced	3 hours		
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
BEHV 4650 - Basic Science of Behavior	3 hours	BEHV 4750 - Capstone in Applied Behavior Analysis	3 hours
BEHV 4680 - Behavioral Assessment	3 hours	Component Area Option A core	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Minors

Behavior Analysis minor

Undergraduate students majoring in a compatible field (e.g., rehabilitation, sociology, psychology, health promotion, hospitality management, merchandising, management or other service professions) may pursue a minor in behavior analysis.

Prerequisites for other courses

- BEHV 2300 - How Behavior Works
- BEHV 3440 - Data Collection and Analysis

Additional requirements

Any other undergraduate courses in behavior analysis may be taken to complete the minor of 18 hours. Six hours of the minor must be advanced.

Department of Criminal Justice

Main Office
Chilton Hall, Room 265

Mailing address:
1155 Union Circle #305130
Denton, TX 76203-5017
940-565-2562
Fax: 940-565-2548
Web site: pahs.unt.edu/cjus

Adam Trahan, Chair

Faculty

The Department of Criminal Justice educates students in the theoretical, practical and empirical aspects of criminal justice in preparation for professional service in both governmental and private entities and in preparation for graduate studies.

Criminal justice faculty come from a diverse range of educational and professional backgrounds reflecting the breadth of the criminal justice discipline, and they enhance the instructional process through their own research activities.

The department works with criminal justice agencies and organizations to promote knowledge and understanding of the people, processes and practices relevant to this dynamic field of study.

Undergraduate majors take a series of core criminal justice courses that provide a foundation regarding the key components of the criminal justice system, including law enforcement, criminal law, corrections, research methods and criminological theory. Students expand their knowledge in these areas and customize their curriculum by selecting from a broad range of criminal justice electives such as those regarding juvenile justice, computer crime and victimology. Internship and study abroad opportunities are available. Both campus-based and online criminal justice courses are offered.

Majors

Criminal Justice, BS

A Bachelor of Science with a major in criminal justice educates you in the theoretical, practical and empirical aspects of criminal justice in preparation for your career or for graduate studies.

Candidates for the Bachelor of Science degree with a major in criminal justice must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

42 hours, including 33 hours in criminal justice:

- CJUS 2100 - Crime and Justice in the United States
- CJUS 3500 - Inequality, Crime and Justice
- CJUS 3600 - Criminology
- CJUS 3900 - Research Methods in Criminal Justice
- CJUS 4600 - What is Justice?
- CJUS 4901 - Criminal Justice Capstone Experience
- 15 hours of criminal justice elective courses (which may be used to customize an area of interest)

Supporting courses, 9 hours

- PSYC 1630 - General Psychology I

- TECM 2700 - Technical Writing or its equivalent, may not be used in place of ENGL 1320
- MATH 1680 - Elementary Probability and Statistics

Minor

None required

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

All students entering the Criminal Justice program must have a cumulative grade point average of at least 2.0 or otherwise be in good academic standing.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CJUS 2100 - Crime and Justice in the United States	3 hours	CJUS 3500 - Inequality, Crime and Justice	3 hours
ENGL 1310 - First-Year Writing I	3 hours	ENGL 1320 - First-Year Writing II	3 hours
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	PSYC 1630 - General Psychology I	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
CJUS 3600 - Criminology	3 hours	CJUS 4600 - What is Justice?	3 hours
PSCI 2306 - US and Texas Constitutions and Institutions	3 hours	PSCI 2305 - US Political Behavior and Policy	3 hours
Component Area Option A core	3 hours	TECM 2700 - Technical Writing	3 hours
Language, Philosophy and Culture core	3 hours	Life and Physical Sciences core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
CJUS 3900 - Research Methods in Criminal Justice	3 hours	Criminal Justice elective	3 hours
Component Area Option B core	3 hours	Criminal Justice elective	3 hours
Criminal Justice elective	3 hours	Minor/Elective	3 hours
Minor/Elective	3 hours	Minor/Elective	3 hours
Elective- advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CJUS 4901 - Criminal Justice Capstone Experience	3 hours	Criminal Justice elective	3 hours
Criminal Justice elective	3 hours	Minor/Elective	3 hours
Minor/Elective	3 hours	Minor/Elective	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Criminal Justice, BS with grad track option leading to Criminal Justice, MS

Admission requirements and program policies

Students will apply by contacting the department. The graduate committee in the department will evaluate student eligibility. Eligible students must complete all application requirements and processes required of all students who apply to the Master of Science with a major in Criminal Justice.

Admission requirements

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance into the Criminal Justice grad track option leading to the Master of Science in Criminal Justice (MSCJ). In this grad track option, students can take up to 12 credit hours of approved graduate CJUS courses while completing the undergraduate degree. Upon conferral of the bachelor's degree and full graduate admission, these graduate credits are applied to the MSCJ degree, reducing time to completion and overall cost.

Prior to registering for any graduate CJUS courses, students must be admitted to the Criminal Justice grad track and obtain approvals as directed by the department; students are expected to have a minimum 3.5 GPA at the time of application and to meet departmental criteria as exceptional candidates for the accelerated pathway. The MSCJ degree is offered in two pathways that grad track students may pursue: campus-based MSCJ with Concentration in Theory and Research and online MSCJ with Concentration in Justice Policy and Administration. At the time of their application to the grad track program, students must declare which pathway they want to pursue.

Final admission criteria

Students meeting grad track requirements will receive official notification to begin the accelerated phase after completing 90 credit hours toward the undergraduate degree; this official notification is required to enroll in graduate-level CJUS courses while classified as undergraduates. During the senior year, students follow department guidance to submit the graduate application, and, upon completion of the bachelor's and satisfaction of program standards, transition to full graduate standing with approved graduate credits applied to the MSCJ degree plan.

Undergraduate students who have been accepted into a grad track program should complete all bachelor's requirements and graduate within one academic year of beginning graduate coursework taken under the grad track designation.

- Criminal Justice majors with at least 75 credit hours completed
- A 3.5 GPA on all course work
- Official application submitted and approved by the Toulouse Graduate School

Program requirements

Students may take graduate coursework from the following MSCJ core offerings, subject to departmental approval and course availability (maximum 12 graduate hours under the grad track):

- CJUS 5000 - Criminal Justice Policy (corresponds with CJUS 4901 - Criminal Justice Capstone Experience)
- CJUS 5200 - Legal Aspects of the Criminal Justice System (corresponds with CJUS 4200 - Criminal Procedure)
- CJUS 5330 - Terrorism (corresponds with CJUS 4330 - Domestic and International Terrorism)
- CJUS 5500 - Seminar in Criminal Justice Administration
- CJUS 5600 - Advanced Criminological Theory (corresponds with CJUS 3600 - Criminology)
- CJUS 5620 - Seminar in Victimology (corresponds with CJUS 4650 - Victimology)
- CJUS 5630 - Women and Crime (corresponds with CJUS 4280 - Gender and Crime)
- CJUS 5700 - Evaluation and Research Methodologies (corresponds with CJUS 3900 - Research Methods in Criminal Justice)
- CJUS 5900 - Special Problems (corresponds with CJUS 4900 - Special Problems)

All remaining courses for the Criminal Justice, BS must be completed.

Minors

Criminal Justice minor

A minor in criminal justice requires completion of 18 semester hours, including 6 hours of advanced work.

Required courses

- CJUS 2100 - Crime and Justice in the United States
- CJUS 2500 - Criminal Law
- CJUS 3600 - Criminology

Plus 9 hours

Nine additional hours of criminal justice courses.

Department of Emergency Management and Disaster Science

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Laura Siebeneck, Chair

Faculty

The Department of Emergency Management and Disaster Science educates students in the theoretical and empirical underpinnings of emergency management. The department's programs aim to provide students with the knowledge and skills necessary to enter the emergency management profession and prepare them for graduate studies. Primary emphasis is placed upon the human dimensions of hazards and disasters and enhancing community and societal resilience to a wide range of threats.

The department is home to the emergency administration and planning program, which was established in 1983 as the nation's first bachelor's degree program in emergency management. Since the program's inception, the department has maintained close relationships with the Federal Emergency Management Agency (FEMA) Region 6 headquarters in Denton. Due to its close proximity to campus, students have opportunities to visit the facilities and FEMA representatives regularly serve as guest lecturers in classes.

The department's faculty come from diverse educational and professional backgrounds and bring a breadth of knowledge and experience to the classroom. They have written books on emergency management and they have been published in many of the top scholarly journals on hazards, disaster and emergency management. Importantly, faculty have received significant external funding for their research from numerous sources, including the National Science Foundation and the Texas Department of Public Safety.

Undergraduate majors take a series of core courses that provide a foundation for understanding the key phases of disasters, including preparedness, response, and mitigation. Students expand their knowledge in these areas by selecting from a broad range of emergency management electives on such topics as terrorism, floodplain management, private sector issues and international disasters. To apply knowledge and skills learned in classes, students also participate in an internship program, which gives them valuable hands-on experience working for various organizations in the public, private and non-profit sectors.

Majors

Emergency Administration and Planning, BS

A Bachelor of Science degree in emergency administration and planning helps you develop valuable skills in disaster planning, creative problem solving, critical thinking and interpersonal communication. These skills are essential in coordinating activities that promote public safety and community resilience to the impacts of natural and technological hazards.

Degree requirements

Candidates for the Bachelor of Science with a major in emergency administration and planning must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours for all EADP students, 42 must be advanced. All students must fulfill the degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements: 42 hours in the university core, 48 hours in the major, plus electives to total 120 required semester hours.

Major requirements

Required courses for all EADP students are:

- EADP 3010 - Principles of Emergency Management
- EADP 3020 - Methods in Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 3055 - EOC Design and Operations
- EADP 4050 - Social Vulnerability in Disasters
- EADP 4080 - Capstone Course in Emergency Management

The remaining hours for the major may be selected from

- BAAS 3000 - Pathways to Civic Engagement
- BIOL 3160 - Conservation Biology
- EADP 1010 - Exploring Disasters
- EADP 2020 - Images of Disasters in Film and Media
- EADP 2030 - Climate Change Resilience
- EADP 2700 - Current Issues in Emergency Management
- EADP 4000 - Hazardous Materials Planning and Management
- EADP 4010 - Public Health and Disasters
- EADP 4015 - Flood Plain Management
- EADP 4020 - Managing Disasters at the National Level
- EADP 4030 - Continuity Planning for Crises
- EADP 4040 - International Disasters
- EADP 4060 - Emerging Technology and Disasters
- EADP 4065 - Disaster Exercise Design
- EADP 4090 - Terrorism and Emergency Management
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 3050 - Introduction to Cartography
- GEOG 3120 - Medical Geography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4170 - Field Methods and Mapping
- GEOG 4240 - Meteorology
- MGMT 4180 - Workplace Health and Safety
- PADM 4210 - Introduction to Philanthropy and Fundraising
- PADM 4130 - American Intergovernmental Relations
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4240 - Volunteer Management Concepts and Applications
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4260 - Volunteer Program Planning and Evaluation
- PADM 4450 - Public Policy Analysis
- RMIN 4600 - Corporate Risk Management
- SOCI 3550 - Social Movements

Other course requirements

- TECM 2700 - Technical Writing (may be used to satisfy the Communication [English Composition and Rhetoric] requirement of the University Core Curriculum)

Life and Physical Sciences requirement

Choose one of the following to satisfy 3 hours of the Life and Physical Sciences requirement of the University Core Curriculum.

- BIOL 1132 - Environmental Science
- GEOG 1710 - Earth Science
- GEOL 1610 - Introduction to Geology

Internship

Pre-career (students with no professionally relevant work experience) – A major of 48 hours; 42 hours plus 6 hours of internship classes (EADP 4800 and EADP 4810).

In-career (students with professionally relevant work experience) – A major of 42 hours. No internship required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- A grade of C or better and a minimum GPA of 2.5 on all courses in the major.
- At least 30 hours must be completed at UNT.
- A maximum of 18 hours of technical credit may be used toward the degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites, have college credit from exams or dual enrollment, and/or elect to pursue a minor or certificate.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	TECM 2700 - Technical Writing	3 hours
BIOL 1132 - Environmental Science	3 hours	EADP 3010 - Principles of Emergency Management	3 hours
Component Area Option A core	3 hours	Life and Physical Sciences core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Mathematics core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
EADP 3020 - Methods in Emergency Management	3 hours	EADP 3045 - Disaster Response and Recovery	3 hours
EADP 3035 - Hazard Mitigation and Preparedness	3 hours	American History core	3 hours
American History core	3 hours	Language, Philosophy and Culture core	3 hours
Creative Arts core	3 hours	Electives list EADP option	3 hours
Electives list EADP option	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
EADP 3055 - EOC Design and Operations	3 hours	EADP 4800 - Emergency Management Internship Preparation	3 hours
EADP 4050 - Social Vulnerability in Disasters	3 hours	Electives list EADP option	3 hours
Electives list EADP option	3 hours	Electives list EADP option	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
EADP 4810 - Emergency Management Internship	3 hours	EADP 4080 - Capstone Course in Emergency Management	3 hours
Electives list EADP option	3 hours	Component Area Option B core	3 hours
Electives list EADP option	3 hours	Electives list EADP option	3 hours
Elective	3 hours	Electives list EADP option	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Emergency Administration and Planning, BS with grad track leading to Emergency Management and Disaster Science, MS

Undergraduate students accepted into the grad track pathway will first earn their BS with a major in Emergency Administration and Planning and, following successful completion of the graduate program, their MS with a major in Emergency Management and Disaster Science, MS.

Admission requirements and program policies

The admissions criteria for students applying to the grad track pathway is consistent with the admission processes and procedures for all applicants to our graduate program. Applicants are required to be in their junior year, have completed at least 75 credit hours of the EADP degree and have a GPA of 3.5 or higher.

Applicants to the grad track pathway will submit:

- An application designed for grad track pathway applicants;
- A current copy of their unofficial transcript;
- A personal statement detailing why they want to participate in this program;
- A writing sample not to exceed 1,000 words that can be from a course project, assignment, or report completed during their undergraduate program;
- A resume of their work experience; and
- Two letters of recommendation from EADP faculty supporting their admission into the program:

Candidates may begin taking EMDS graduate courses upon completing at least 90 hours of their undergraduate degree. Finally, they will be required to complete their EADP bachelor's degree within one academic year of beginning the EMDS graduate-level coursework.

Program requirements, 9 hours

- EMDS 5010 – Emergency Management Theory and Practice
- EMDS 5110 – Disaster Research Methods
- EMDS 5120 – Applied Statistics in Disaster Science

Minors

Emergency Administration and Planning minor

Undergraduate students majoring in a compatible field (e.g., social and behavioral sciences, business, management, political science/public administration and geography) may pursue a minor in emergency administration and planning.

The minor requires 18 hours.

Requirements

All EADP minors will complete EADP 3010, EADP 3035 and EADP 3045.

- EADP 3010 - Principles of Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- 9 additional hours are required for the minor, all of which must be selected from a list of selected EADP courses

Note

The remaining 9 hours may be chosen from any EADP-prefix course (except EADP 4080, EADP 4800 and EADP 4810).

Department of Kinesiology, Health Promotion and Recreation

Main Office
Physical Education Building, Room 209

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Denton, TX 76203-5017
940-565-2651
Fax: 940-565-4904
Web site: pahs.unt.edu/khpr

Tao Zhang, Interim Chair

Faculty

The Department of Kinesiology, Health Promotion and Recreation offers a variety of programs of study in kinesiology; health promotion; and recreation, events and sport management. The department offers teaching and non-teaching degrees and courses that fulfill university's core requirements.

The Center for Sport Psychology and Performance Excellence (CSPPE) is a multi-disciplinary center devoted to offering sport psychology interventions, research and training. The center combines the expertise of faculty in psychology and kinesiology to produce the most comprehensive and state-of-the-art sport psychology services available.

Kinesiology

Main Office
Physical Education Building, Room 209
940-565-2651

The program in kinesiology offers a complete curriculum that prepares students for a variety of careers in the public and private sectors and in teaching. Degrees include Bachelor of Science and Master of Science with a major in kinesiology. A teacher certification program is available, which is a standard all-level certificate in physical education (kinesiology) at the bachelor's level.

All kinesiology majors must fulfill program requirements. The program requires successfully completing Tier 1 and Tier 2.

Tier 1 courses are MATH 1680, BIOL 2301/BIOL 2311, BIOL 2302/BIOL 2312 (or KINE 2105*), PHED 1000, KINE 2030, and KINE 2050 with a 2.5 overall GPA.

Tier 2 courses are KINE 3080, KINE 3090 with a 2.5 overall GPA.

*KINE 2105 will fulfill the anatomy and physiology requirement for the general and teacher certification track. Students on the allied health track are required to take BIOL 2301/BIOL 2311 and BIOL 2302/BIOL 2312. Note an additional 3 hours of physical and life science core is required.

Teacher certification

Students should refer to the sections on "Teacher certification," "Teaching certificates" and "Student teaching" in the College of Education general information pages of this catalog for necessary requirements to qualify for recommendation for a Texas teaching certificate.

Degree plan

The degree plan is the official document outlining the student's course of study. The student is responsible for initiating the degree plan process and should do so as soon as possible after being formally enrolled at the university.

Career advising should be sought in the departmental office, Physical Education Building, Room 209. The student, with advisement, makes decisions relating to the program of study. The degree plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Students should have their degree plans updated the term/semester before graduation in Matthews Hall, Room 105.

Scholarships

The Irma Caton, John Douthitt Memorial, Corinne and David Hill, Morrow Family, and Peggy Richardson scholarships are awarded annually to a kinesiology major. The Eurice Miller Bass, Paramount Pictures KHPR and Delta Psi Kappa Beulah A. Harriss scholarships also are available. Information and applications are available in the departmental office, Physical Education Building, Room 209, and on the departmental web site pahs.unt.edu/khpr.

Health Behavior and Fitness

Main Office
Physical Education Building, Room 209
940-565-2651

The health behavior and fitness program is designed to prepare graduates for careers in a variety of community health organizations (hospital-based health programs, work-site wellness programs, community-based agencies, commercial fitness centers, public health departments), as well as in local, state and national government health agencies (CDC&P, FDA, EPA).

Degree plan

The degree plan is the official document outlining the student's course of study. The student is responsible for initiating the degree plan process and should do so as soon as possible after being formally enrolled at the university.

Career advising should be sought in the departmental office in PEB, Room 209. The student, with advisement, makes decisions relating to the program of study. The degree plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Students should have their degree plans updated the term/semester before graduation in Matthews Hall, Room 105.

Scholarships

The Linda and Philip Dudney Health Promotion Scholarship is awarded to deserving undergraduate and graduate majors. The Eurice Miller Bass, Paramount Pictures KHPR, and Delta Psi Kappa Beulah A. Harriss scholarships also are available. For information, contact the departmental office or visit the departmental web site pahs.unt.edu/khpr.

Recreation, Event and Sport Management

Main Office
Physical Education Building, Room 209
940-565-2651

The program's primary goals are the professional preparation of undergraduate and graduate students, research into the phenomena of leisure; practical application related to recreation and sport operation and management; development of new techniques for professional practice; community and professional service; continuing education; scholarly publications; and technical assistance.

The program in recreation, event and sport management leading to the Bachelor of Science degree prepares students for careers in three interest areas: program management, event management, and sport management. The undergraduate program emphasizes the study of recreation, event and sport and the preparation of students for management and leadership positions in a variety of agency settings.

Career opportunities for program graduates include federal, state and local government park and recreation agencies; intramural, youth, community, intercollegiate and professional sport management agencies; commercial recreation agencies; corporate employee and campus and military recreation operations.

Degree plan

The degree plan is the official document outlining the student's course of study. The student is responsible for initiating the degree plan process and should do so as soon as possible after being formally enrolled at the university.

Advising should be sought in the departmental office. The student, with advisement, makes decisions related to the program of study. The degree plan is subsequently prepared in the College of Education Student Advising Office in Matthews Hall, Room 105. Students should have their degree plans updated the term/semester before their internship in Matthews Hall, Room 105.

Scholarships

The Don C. Bailey, Sue Delmark, Marian C. Keller, Rita Pilkey, Julia Wakeley, and the Rich Herold Scholarships are awarded annually on a competitive basis to undergraduate and graduate majors in the program. The KHPR and Delta Psi Kappa Beulah A. Harriss scholarships also are available. Information and applications are available in the departmental office and on the departmental web site pahs.unt.edu/khpr.

Majors

Health Behavior and Fitness, BS

The Bachelor of Science with a major in health behavior and fitness provides you with the skills to assist others in living a healthy life with an emphasis on wellness and physical activity. The curriculum explores a range of areas around healthy lifestyle choices including exercise, nutrition, psychology and wellbeing. This degree provides students with a strong foundation to pursue careers in workplace wellness, fitness, personal training, wellness coaching and related health and exercise industries as well as to pursue advanced degrees in these areas.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 hours must be advanced, and fulfillment of degree requirements for Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

Pre-theory core

Pre-theory core to be completed with C or better before taking 4000-level HLTH courses.

- HLTH 1900 - Principles of Health
- KINE 2105 - Human Anatomy and Physiology for the movement sciences
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

Health core

- HLTH 2200 - Family Life and Human Sexuality
- HLTH 3300 - Health Emergencies and First Aid
- HLTH 4300 - Workplace Wellness
- HLTH 4340 - Minority Populations and Health
- HLTH 4360 - Chronic Disease Prevention and Management
- HLTH 4600 - Behavioral Change Strategies in Health Promotion
- HLTH 4850 - Internship in Health Behavior and Fitness

Culture awareness

- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health

Exercise and fitness

- KINE 2010 - Fundamentals of Strength and Conditioning
- KINE 2050 - Sociology of Sport
- KINE 3020 - Movement for Individuals with Disabilities
- KINE 3030 - Fundamentals of Sport Nutrition
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 3150 - Psychology of Exercise
- KINE 4300 - Exercise Leadership
- KINE 4325 - Fitness Testing

Minor

Minimum of 18 hours, 6 of which must be advanced. Recreation, Event and Sport Management Minor (for non-majors) is preferred.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor.

Other course requirements

- MATH 1680 - Elementary Probability and Statistics
- COMM 2020 - Interpersonal Communication

  or
- COMM 2040 - Public Speaking

  or
- COMM 2140 - Advocating in Public
- NUTR 2460 - Introduction to Nutrition Science

Other requirements

Students must have:

- a 2.5 GPA for the major (including both HLTH and KINE core courses),
- a 2.0 overall GPA, and
- a C or better in all HLTH and KINE courses.

Kinesiology with a concentration in Pre-PT/Allied Health, BS

A Bachelor of Science with a major in kinesiology shows that you are committed to best practices within the field of human movement and wellness. By choosing the Pre-PT/Allied Health track, you will also be well prepared to pursue graduate degrees within the health and medical fields, including physical therapy and occupational therapy.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (Pre-PT/Allied Health track).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

All Kinesiology Pre-PT/Allied Health track majors

All Kinesiology Pre-PT/Allied Health track majors must take the following courses. Some are prerequisites for courses in the Kinesiology core.

- HLTH 2200 - Family Life and Human Sexuality
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Kinesiology pre-theory core, 12 hours

To take upper-division KINE courses, KINE majors must have completed each course in the pre-theory core with a minimum grade of C and have a 2. 5 overall GPA or higher.

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- MATH 1680 - Elementary Probability and Statistics
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

Kinesiology theory core, 18 hours

- KINE 2010 - Fundamentals of Strength and Conditioning
- KINE 3050 - Biomechanics
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 3090 - Motor Behavior
- KINE 4000 - Psychology of Sport
- KINE 4050 - Quantitative Analysis in Kinesiology

Required courses, 54 hours

Biology, 8 hours

- BIOL 1710 - Biology for Science Majors I
- BIOL 1720 - Biology for Science Majors II
- BIOL 1760 - Biology for Science Majors Laboratory

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Chemistry, 8 hours

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

Health promotion courses, 3 hours

- HLTH 4600 - Behavioral Change Strategies in Health Promotion

Kinesiology courses, 18 hours

- KINE 3500 - Motor Development
- KINE 4200 - Basic Athletic Training
- KINE 4300 - Exercise Leadership
- KINE 4325 - Fitness Testing
- Students select 6 hours from any KINE 3000/4000-level courses not already required for program.

Physics, 8 hours

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

Psychology, 6 hours

- PSYC 1630 - General Psychology I
- PSYC 3620 - Developmental Psychology

UNT Electives, 3 hours

- BIOL 1500 - Medical Terminology
- HLTH 3300 - Health Emergencies and First Aid
- KINE 3020 - Movement for Individuals with Disabilities
- KINE 3030 - Fundamentals of Sport Nutrition
- KINE 4310 - Advanced Strength and Conditioning I
- KINE 4330 - Advanced Sport Nutrition and Metabolism
- KINE 4860 - Internship in Kinesiology
- PSYC 4300 - Biopsychosocial Challenges Related to Sexually Transmitted Infections

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Minor

None required.

Additional program requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.75 in all KINE courses in the major, 2.0 in UNT courses, and overall is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)
- 12 hours of KINE must be taken at UNT.
- 42 hours must be advanced; 24 of which must be taken at UNT.

Students are encouraged to see their academic or faculty advisor each term/semester for help with program decisions and enrollment.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
HLTH 2200 - Family Life and Human Sexuality	3 hours	KINE 2030 - Introduction to Kinesiology	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	KINE 2050 - Sociology of Sport	3 hours
PHED 1000 - Scientific Principles and Practices of Health-Related Fitness	3 hours	American History core	3 hours
American History core	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
BIOL 2301 - Human Anatomy and Physiology I	3 hours	BIOL 2302 - Human Anatomy and Physiology II	3 hours
BIOL 2311 - Human Anatomy and Physiology I Laboratory	1 hour	BIOL 2312 - Human Anatomy and Physiology II Laboratory	1 hour
PSYC 1630 - General Psychology I	3 hours	KINE 2010 - Fundamentals of Strength and Conditioning	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Language, Philosophy and Culture core	3 hours	Elective List option	4 hours
Total	13 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
BIOL 1710 - Biology for Science Majors I	3 hours	BIOL 1720 - Biology for Science Majors II	3 hours
CHEM 1410 - General Chemistry I for Science Majors	3 hours	BIOL 1760 - Biology for Science Majors Laboratory	2 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1420 - General Chemistry II for Science Majors	3 hours
HLTH 4600 - Behavioral Change Strategies in Health Promotion	3 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
KINE 3080 - Physiological Bases of Exercise and Sport	3 hours	KINE 4200 - Basic Athletic Training	3 hours
KINE 3090 - Motor Behavior	3 hours	Elective	3 hours
Total	16 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
KINE 3050 - Biomechanics	3 hours	KINE 3500 - Motor Development	3 hours
KINE 4000 - Psychology of Sport	3 hours	KINE 4050 - Quantitative Analysis in Kinesiology	3 hours
KINE 4300 - Exercise Leadership	3 hours	KINE 4325 - Fitness Testing	3 hours
PHYS 1410 - General Physics I	3 hours	PHYS 1420 - General Physics II	3 hours
PHYS 1430 - General Physics Laboratory I	1 hour	PHYS 1440 - General Physics Laboratory II	1 hour
PSYC 3620 - Developmental Psychology	3 hours	Elective	3 hours
Total	16 hours	Total	16 hours

Kinesiology with a concentration in Strength and Conditioning, BS

The Bachelor of Science with a major in Kinesiology shows that you are committed to best practices within the field of human movement and wellness. The Strength and Conditioning concentration provides students with a strong background in human performance, preparing students for professions such as an exercise specialist in corporate and private health & fitness, athletic strength & conditioning, exercise physiology, exercise equipment representatives, and sports performance specialists. Students may also prepare for graduate degree opportunities (M.S., Ph.D.) in other exercise and sport science fields.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

All kinesiology general track majors

All Kinesiology general majors must take the following courses. Some are prerequisites for courses in the Kinesiology core.

- HLTH 2200 - Family Life and Human Sexuality
- KINE 2105 - Human Anatomy and Physiology for the movement sciences

  or
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

  and
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Kinesiology pre-theory core, 12 hours

To take upper-division KINE courses, KINE majors must have completed each course in the pre-theory core with a minimum grade of C and have a 2.5 overall GPA or higher.

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- MATH 1680 - Elementary Probability and Statistics
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

Kinesiology theory core, 18 hours

- KINE 2010 - Fundamentals of Strength and Conditioning
- KINE 3050 - Biomechanics
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 3090 - Motor Behavior
- KINE 4000 - Psychology of Sport
- KINE 4050 - Quantitative Analysis in Kinesiology

General interest area, 6 hours

Students select 6 hours from any KINE 3000/4000-level courses not already required for program. KINE 2240 may be selected as part of these 6 hours.

Strength and Conditioning Concentration, 21 hours

- HLTH 3300 - Health Emergencies and First Aid
- KINE 3030 - Fundamentals of Sport Nutrition
- KINE 4300 - Exercise Leadership
- KINE 4310 - Advanced Strength and Conditioning I
- KINE 4315 - Advanced Strength and Conditioning II
- KINE 4325 - Fitness Testing
- KINE 4850 - Kinesiology Capstone

Internship, 6 hours

Students are required to complete a minimum of 300 documented field experience contact hours in the strength and conditioning industry. Students must complete two substantially different experiences that include two different CSCS-certified supervisors, more than 75 hours per experience, and be at least 6 weeks in length each.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.75 in all KINE courses in the major, 2.0 in UNT courses, and overall is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)
- 12 hours of KINE must be taken at UNT.
- 42 hours must be advanced; 24 of which must be taken at UNT.

Students are encouraged to see their academic or faculty advisor each term/semester for help with program decisions and enrollment.

Kinesiology, BS (Coaching Education track) (not currently accepting students)

This track is not currently accepting students.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science degree with a major in kinesiology (coaching education track).

Hours required and general/college requirements

A minimum of 120 semester hours (127 semester hours for those seeking all-level teacher certification), of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Education requirements.

All kinesiology majors

All kinesiology majors must take the following courses. Some are prerequisites for courses in the kinesiology core.

- BIOL 2301 - Human Anatomy and Physiology I

- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory
- MATH 1680 - Elementary Probability and Statistics
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

Literature, 3 hours

3 hours selected from the following English courses:

Theory core, 24 hours

All kinesiology majors take the following courses and must meet all prerequisites.

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- KINE 3020 - Movement for Individuals with Disabilities
- KINE 3050 - Biomechanics
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 3090 - Motor Behavior
- KINE 4000 - Psychology of Sport
- KINE 4050 - Quantitative Analysis in Kinesiology

Capstone course, 3 hours

- RESM 4150 - Capstone Experience in Recreation, Event and Sport Management

Physical performance courses, 5 hours

PHED 1211 and one course from Group I, Section D are required of all students in the non-teacher certification option. In addition, students must choose two **additional** sport activities from Group I (each from a different section) and one selected from Group II. At least **one** activity must be at the intermediate or advanced level.

Group I

Section A

- PHED 1010 - Beginning Swimming
- PHED 1030 - Intermediate Swimming

Section B

- PHED 1590 - Beginning Tennis
- PHED 1600 - Intermediate Tennis
- PHED 1610 - Advanced Tennis

Section C

- PHED 1570 - Beginning Racquetball
- PHED 1660 - Intermediate Racquetball

Section D

- PHED 1120 - Swim Conditioning
- PHED 1200 - Conditioning Exercises
- PHED 1220 - Jogging
- PHED 1230 - Aerobic Dance
- PHED 1250 - Pilates
- PHED 1260 - Yoga

Group II

Section A

- PHED 1700 - Women's Beginning Basketball
- PHED 1710 - Intermediate Basketball
- PHED 1711 - Men's Intermediate Basketball

Section B

- PHED 1780 - Women's Beginning Volleyball
- PHED 1781 - Men's Beginning Volleyball
- PHED 1790 - Intermediate Volleyball
- PHED 1791 - Men's Intermediate Volleyball

Section C

- PHED 1740 - Soccer
- PHED 1741 - Men's Soccer
- PHED 1770 - Touch Football

Other kinesiology requirements

Coaching education track, 15 hours

Required courses, 9 hours including

- HLTH 3300 - Health Emergencies and First Aid
- 6 hours in consultation with advisor

Plus 6 hours selected from

- KINE 3260 - Coaching Youth Sport
- KINE 4200 - Basic Athletic Training
- KINE 4410 - Facilities, Equipment and Budget for Athletics or
- RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations
- KINE 4860 - Internship in Kinesiology
- Other courses in consultation with advisor

Minor

Minimum of 18 hours from area other than kinesiology, 6 of which must be advanced.

Electives

14 hours, most of which must be advanced

Other requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.75 in the major, a 2.0 in UNT courses, and overall is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)
- 12 hours of KINE must be taken at UNT.
- 42 hours must be advanced; 24 of which must be taken at UNT.
- 6 hours minimum of minor must be advanced.

Total number of hours may be reduced if student follows recommendations for courses listed in university core. (Consult the Student Advising Office, Matthews Hall, Room 105, for details.)

Students are encouraged to see their academic or faculty advisor each term/semester for help with program decisions and enrollment.

All kinesiology majors

A minimum grade of C is required in MATH 1680, BIOL 2301/BIOL 2311 and BIOL 2302/BIOL 2312. A 3.0 GPA is required in PHED 1000, KINE 2030 and KINE 2050 prior to a kinesiology major being allowed to take any KINE 3000- or 4000-level theory core courses.

Kinesiology, BS (General track)

A Bachelor of Science with a major in kinesiology shows that you are committed to best practices within the field of human movement and wellness. By choosing the general track, you have a wide latitude for choice of studies within your major.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (general track):

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

All kinesiology general track majors

All Kinesiology general majors must take the following courses. Some are prerequisites for courses in the Kinesiology core.

- HLTH 2200 - Family Life and Human Sexuality

- KINE 2105 - Human Anatomy and Physiology for the movement sciences

  or

- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2311 - Human Anatomy and Physiology I Laboratory

  and

- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Kinesiology pre-theory core, 12 hours

To take upper-division KINE courses, KINE majors must have completed each course in the pre-theory core with a minimum grade of C and have a 2. 5 overall GPA or higher.

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness
- MATH 1680 - Elementary Probability and Statistics

Kinesiology theory core, 18 hours

- KINE 2010 - Fundamentals of Strength and Conditioning
- KINE 3050 - Biomechanics
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 3090 - Motor Behavior
- KINE 4000 - Psychology of Sport
- KINE 4050 - Quantitative Analysis in Kinesiology

General interest area, 15 hours

Students select 15 hours from any KINE 3000/4000-level courses not already required for program. KINE 2240 - Coaching Soccer may be selected as part of these 15 hours.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Minor, 18 hours

Minimum of 18 hours from area other than kinesiology, 6 of which must be advanced.

Other requirements

- A minimum grade of C is required in each course in the major; a minimum GPA of 2.75 in all KINE courses in the major, 2.0 in UNT courses, and overall is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)
- 12 hours of KINE must be taken at UNT.
- 42 hours must be advanced; 24 of which must be taken at UNT.
- 6 hours minimum of minor must be advanced.

Students are encouraged to see their academic or faculty advisor each term/semester for help with program decisions and enrollment.

Recreation, Event and Sport Management, BS

The Bachelor of Science degree program with a major in Recreation, Event, and Sport Management (RESM) prepares students for entry-level positions within recreation, event, and sport organizations and agencies. This degree provides students with a foundational understanding of recreation, event, and sport management fields while also developing their practical operational and management skills. Students are prepared for careers in public, non-profit, and private recreation, event, and sport organizations.

The Recreation, Event, and Sport Management degree is also designed as a 2 + 2 program. Students earning their associate in arts or associate in science degrees from a Texas college may come with 60 semester credit hours that will be applied to their degree.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in recreation, event, and sport management.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog.

Recreation, event and sport management core courses, 30 hours

- RESM 1950 - Foundations and Career Opportunities in Recreation, Event, and Sport Organizations (must be taken during the first semester enrolled in the program)
- RESM 2150 - Leadership in Recreation, Event, and Sport Organizations

- RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations
- RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations
- RESM 4050 - Management of Recreation, Event and Sport Organizations
- RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations
- RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations
- RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations
- RESM 4190 - Finance in Recreation, Event, and Sport Organizations
- RESM 4250 - Marketing in Recreation, Event, and Sport Organizations

RESM capstone/pre-internship, 3 hours

- RESM 4150 - Capstone Experience in Recreation, Event and Sport Management

Internship, 12 hours

Each Recreation, Event, and Sport Management student is required to complete a total of 12 credit hours of internship/on-site experience (RESM 4100).

- Students must complete a minimum of 400 clock hours of documented internship hours to meet this requirement.
- The student must meet several requirements prior to enrollment in this course, including:
  - Completion of RESM 4150 (Capstone/Pre-Internship) with a "C" or better;
  - A minimum of 2.00 overall GPA and a "C" or better in each RESM course;
- Departmental permission to enroll in the course.
- The internship is typically a 30 to 40-hours per week affiliation with an approved agency.
- RESM 4100 - Internship in Recreation, Event, and Sport Organizations

Minor requirements, 18 hours

Student may choose a pre-defined minor from another discipline.

Electives, 15 hours

Students must choose 15 hours of electives. Pursuing a certificate complementing the student's career interest is highly suggested.

Other requirements

- A minimum grade of C is required in each RESM course.
- A 2.5 overall GPA is required on all RESM courses.
- A minimum UNT GPA of 2.0 and an overall GPA of 2.0 are required for graduation. Overall GPA includes all course work transferred plus that taken at UNT.

Notes

Students are encouraged to see their academic or faculty advisor and the department degree audit advisor each term/semester for help with program decisions and enrollment.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
American History core	3 hours	American History core	3 hours
Communication core	3 hours	Communication core	3 hours
Component Area Option B core	3 hours	Creative Arts core	3 hours
Mathematics core	3 hours	Language, Philosophy and Culture core	3 hours
Social and Behavioral Sciences core	3 hours	Component Area Option A core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
RESM 1950 - Foundations and Career Opportunities in Recreation, Event, and Sport Organizations	3 hours	RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations	3 hours
RESM 2150 - Leadership in Recreation, Event, and Sport Organizations	3 hours	RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations	3 hours
Government/Political Science core	3 hours	RESM 4050 - Management of Recreation, Event and Sport Organizations	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
Required minor	3 hours	Life and Physical Sciences core	3 hours
		Required minor	3 hours
Total	15 hours	Total	18 hours

Year 3

Semester 1		Semester 2	
RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations	3 hours	RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations	3 hours
Required minor	3 hours	RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations	3 hours
Required minor	3 hours	RESM 4190 - Finance in Recreation, Event, and Sport Organizations	3 hours
Elective	3 hours	Required minor	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
RESM 4150 - Capstone Experience in Recreation, Event and Sport Management	3 hours	RESM 4100 - Internship in Recreation, Event, and Sport Organizations	3-12 hours
RESM 4250 - Marketing in Recreation, Event, and Sport Organizations	3 hours		
Required minor	3 hours		
Elective	3 hours		
Elective	3 hours		
Total	15 hours	Total	12 hours

Minors

Health Promotion minor

Students who wish to minor in health promotion must take a minimum of 18 credit hours in health courses, including 12 hours at the advanced level. A minimum grade of C is required in each course in the minor.

Kinesiology minor

The requirements for a minor in kinesiology are 21 hours.

15 hours selected from

*Course has prerequisite

- KINE 2000 - History and Philosophy of Sport and Physical Activity in the United States (course not being offered)
- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- KINE 3020 - Movement for Individuals with Disabilities
- KINE 3050 - Biomechanics *
- KINE 3080 - Physiological Bases of Exercise and Sport *
- KINE 3090 - Motor Behavior
- KINE 4000 - Psychology of Sport
- KINE 4050 - Quantitative Analysis in Kinesiology *

Plus 6 additional hours

Selected from any KINE courses.

Additional requirements

Six hours must be advanced. A minimum grade of C is required in each course in the minor.

Recreation, Event and Sport Management minor (for non-majors)

Students minoring in recreation, event and sport management are required to take:

Major course, 3 hours

- RESM 1950 - Foundations and Career Opportunities in Recreation, Event, and Sport Organizations

Additional Minor Requirements

Student must select 5 courses (15 hours) from the list of courses below:

- RESM 2150 - Leadership in Recreation, Event, and Sport Organizations
- RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations
- RESM 4050 - Management of Recreation, Event and Sport Organizations
- RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations
- RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations
- RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations
- RESM 4190 - Finance in Recreation, Event, and Sport Organizations
- RESM 4250 - Marketing in Recreation, Event, and Sport Organizations

Additional requirements

A minimum grade of C is required in each course in the minor.

Department of Psychology

Main Departmental Office
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940-565-2671
Fax: 940-565-4682
Web site: www.psychology.unt.edu

Donald Dougherty, Chair

Faculty

The Department of Psychology offers training for individuals interested in combining a major in psychology with a variety of career areas. Careful selection of courses required to complete a major in psychology can provide preparation for the following possibilities: (1) graduate training in such specialty areas of psychology as experimental, clinical, counseling, quantitative, health psychology/behavioral medicine, physiological; (2) application to dental, medical and law schools; or (3) entry-level employment in such fields as advertising, gerontology, child development/child care, computer science, criminal justice, marketing, recreation, rehabilitation, human resources, sales, research assistant, and technical writing. Other areas also are available upon consultation with an advisor.

Programs of study

Programs offered by the department are described below.

Graduation requirements

The following are graduation requirements for the psychology major, over and above those course requirements stated in the Bachelor of Arts and Bachelor of Science paragraphs below:

- Psychology, BA – a GPA of 2.5 in all psychology courses must be maintained for the student to graduate. If the psychology GPA falls below 2.5, additional psychology courses must be taken and passed with grades high enough to retain a 2.5 major GPA to graduate.
- Psychology, BS – a GPA of 2.5 in all psychology courses must be maintained for the student to graduate. If the psychology GPA falls below 2.5, additional psychology courses must be taken and passed with grades high enough to retain a 2.5 major GPA to graduate.
- Psychology majors must earn a grade of C or better for any psychology courses used in the major.

Majors

Psychology, BA

A Bachelor of Arts with a major in psychology gives you a scientific basis of psychological knowledge. With practical experience and classes, you learn the many ways psychology is applied to everyday life.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in psychology.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

At least 35 hours of psychology coursework.

Psychology core, 14 hours

- PSYC 1630 - General Psychology I
- PSYC 2317 - Quantitative Methods (prerequisite MATH 1680)
- PSYC 3317 - Quantitative Methods Lab (1 hour; prerequisite MATH 1680; concurrent enrollment or completion of PSYC 2317)
- PSYC 3650 - Experimental Methods (4 hours; prerequisites PSYC 2317, PSYC 3317, and ENGL 1320 or TECM 2700)
- PSYC 4600 - History and Systems (prerequisite PSYC 3650)

Note: PSYC 1630, PSYC 2317, PSYC 3317 and PSYC 3650 are prerequisites for many of the advanced psychology courses.

Additional psychology courses, 21 hours

PSYC 4849 may apply toward one of the categories when the topic is appropriate. See your academic advisor to have the course applied to the corresponding category.

Brain, behavior and cognition

3 hours selected from:

- PSYC 1650 - Biological Psychology
- PSYC 4640 - Psychophysiology
- PSYC 4690 - Introduction to Learning and Memory
- PSYC 4820 - Sensation and Perception
- PSYC 4830 - Cognitive Psychology

Applied psychology

3 hours selected from:

- PSYC 3520 - Introduction to Industrial Organizational Psychology
- PSYC 3530 - Forensic Psychology
- PSYC 3630 - Research in Psychological Measurement
- PSYC 4110 - Interviewing Skills in Helping Professions
- PSYC 4480 - New Directions in Psychology
- PSYC 4510 - Practicum
- PSYC 4850 - Research in Psychology
- PSYC 4900 - Special Problems
- PSYC 4910 - Special Problems

Diversity and inclusivity

6 hours selected from:

- PSYC 3490 - Psychology of Women and Gender
- PSYC 4030 - Multicultural Psychology
- PSYC 4040 - Psychology of Race in the U.S.
- PSYC 4050 - Cross-Cultural Psychology

Health and development

3 hours selected from:

- PSYC 2580 - Health Psychology
- PSYC 3000 - Positive Psychology
- PSYC 3480 - Adult Development and Aging
- PSYC 3620 - Developmental Psychology
- PSYC 4020 - Psychology of Death and Dying
- PSYC 4300 - Biopsychosocial Challenges Related to Sexually Transmitted Infections
- PSYC 4470 - Sexual Behavior
- PSYC 4700 - Psychobiology of Stress: The Mind-Body Connection

Psychopathology and personality

3 hours selected from:

- PSYC 2480 - Psychosocial Adjustment
- PSYC 3300 - Psychology of Addictive Behaviors
- PSYC 4520 - Personality

- PSYC 4610 - Psychopathology
- PSYC 4620 - Child Psychopathology

Relationships

3 hours selected from:

- PSYC 2600 - Interpersonal Behavior
- PSYC 3100 - Social Psychology
- PSYC 3640 - Intimate Partnerships and Caregiving

Other course requirements

- MATH 1680 or approved substitution.
- Completion of the university composition requirement with a grade of C or better to enroll in PSYC 3650.

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

At least 18 hours of psychology course work must be taken at UNT. Of these 18 hours, *at least 12 hours must be advanced hours.*

A 2.0 overall GPA.

A 2.5 Psychology major GPA.

A grade of C or better is required for each psychology class used in the major.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSYC 2317 - Quantitative Methods	3 hours
PSYC 1630 - General Psychology I	3 hours	PSYC 3317 - Quantitative Methods Lab	1 hour
Communication core	3 hours	Communication core	3 hours
Foreign Language-elementary	3 hours	Life and Physical Sciences Core	3 hours
		Foreign Language-elementary	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PSYC 3650 - Experimental Methods	4 hours	Creative Arts Core	3 hours
Life and Physical Sciences Core	3 hours	Language, Philosophy and Culture Core	3 hours
Foreign Language-intermediate	3 hours	Foreign Language-intermediate	3 hours
Psychology-Health and Development selection	3 hours	Psychology-Relationships selection	3 hours
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Component Area Option A Core	3 hours	Psychology-Brain, Behavior and Cognition selection	3 hours
Psychology-Applied Psychology selection	3 hours	Psychology-Diversity and Inclusivity selection	3 hours
Psychology-Diversity and Inclusivity selection	3 hours	Psychology-Psychopathology and Personality selection	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
PSYC 4600 - History and Systems	3 hours	Elective	3 hours
Component Area Option B Core	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	1 hour
Total	15 hours	Total	13 hours

Psychology, BS

A Bachelor of Science with a major in psychology gives you a scientific basis of psychological knowledge. This degree can prepare you to enter medical school, law school or seminary.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in psychology.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

At least 41 hours of psychology coursework.

Psychology core, 14 hours

- PSYC 1630 - General Psychology I
- PSYC 2317 - Quantitative Methods (3 hours; prerequisite MATH 1680)
- PSYC 3317 - Quantitative Methods Lab (1 hour; prerequisite MATH 1680; concurrent enrollment in or completion of PSYC 2317)
- PSYC 3650 - Experimental Methods (4 hours; prerequisite PSYC 2317, PSYC 3317, and ENGL 1320 or TECM 2700)
- PSYC 4600 - History and Systems (prerequisite PSYC 3650)

Note: PSYC 1630, PSYC 2317 and PSYC 3650 are prerequisites for many of the advanced psychology courses.

Additional psychology courses, 27 hours

Foundation courses, 9 hours

- PSYC 3100 - Social Psychology
- PSYC 3620 - Developmental Psychology
- PSYC 4610 - Psychopathology

Plus 18 hours from the following psychology categories

PSYC 4849 - Topics in Psychology may apply toward one of the categories when the topic is appropriate. See your academic advisor to have the course applied to the corresponding category.

Brain behavior and cognition

6 hours selected from:

- PSYC 1650 - Biological Psychology
- PSYC 4640 - Psychophysiology
- PSYC 4690 - Introduction to Learning and Memory
- PSYC 4820 - Sensation and Perception
- PSYC 4830 - Cognitive Psychology

Applied psychology

3 hours selected from:

- PSYC 3520 - Introduction to Industrial Organizational Psychology
- PSYC 3530 - Forensic Psychology
- PSYC 3630 - Research in Psychological Measurement
- PSYC 4110 - Interviewing Skills in Helping Professions
- PSYC 4480 - New Directions in Psychology
- PSYC 4510 - Practicum
- PSYC 4850 - Research in Psychology
- PSYC 4900 - Special Problems
- PSYC 4910 - Special Problems

Diversity and inclusivity

3 hours selected from:

- PSYC 3490 - Psychology of Women and Gender
- PSYC 4030 - Multicultural Psychology
- PSYC 4040 - Psychology of Race in the U.S.
- PSYC 4050 - Cross-Cultural Psychology

Health and development

3 hours selected from:

- PSYC 2580 - Health Psychology
- PSYC 3000 - Positive Psychology
- PSYC 3480 - Adult Development and Aging
- PSYC 4020 - Psychology of Death and Dying
- PSYC 4300 - Biopsychosocial Challenges Related to Sexually Transmitted Infections
- PSYC 4470 - Sexual Behavior
- PSYC 4700 - Psychobiology of Stress: The Mind-Body Connection

Psychopathology and personality

3 hours selected from:

- PSYC 2480 - Psychosocial Adjustment
- PSYC 3300 - Psychology of Addictive Behaviors
- PSYC 4520 - Personality
- PSYC 4620 - Child Psychopathology

Other course requirements

- MATH 1680 or approved substitution.
- Completion of the university composition requirement with a grade of C or better (required before enrolling in PSYC 3650).

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

At least 18 hours of psychology course work must be taken at UNT. Of these 18 hours, *at least 12 hours must be advanced hours*.

A 2.0 overall GPA.

A 2.5 Psychology major GPA.

A grade of C or better is required for each psychology class used in the major.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
MATH 1680 - Elementary Probability and Statistics	3 hours	PSCI 2306 - US and Texas Constitutions and Institutions	3 hours
PSCI 2305 - US Political Behavior and Policy	3 hours	PSYC 2317 - Quantitative Methods	3 hours
PSYC 1630 - General Psychology I	3 hours	PSYC 3317 - Quantitative Methods Lab	1 hour
Communication core	3 hours	Communication core	3 hours
Creative Arts core	3 hours	Life and Physical Sciences core	3 hours
		Elective	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
HIST 2610 - United States History to 1865	3 hours	HIST 2620 - United States History Since 1865	3 hours
PSYC 3620 - Developmental Psychology	3 hours	PSYC 3100 - Social Psychology	3 hours
PSYC 3650 - Experimental Methods	4 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Psychology-Health and Development selection	3 hours
Elective	3 hours	Elective	3 hours
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Component Area Option core	3 hours	Component Area Option core	3 hours
Psychology-Applied Psychology selection	3 hours	Psychology-Diversity and Inclusion selection	3 hours
Psychology-Brain, Behavior and Cognition selection	3 hours	Psychology-Psychopathology and Personality selection	3 hours
Elective	3 hours	Elective	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
PSYC 4610 - Psychopathology	3 hours	PSYC 4600 - History and Systems	3 hours
Psychology-Brain, Behavior and Cognition selection	3 hours	Elective	3 hours
Elective	3 hours	Elective	1 hour
Elective-advanced	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	13 hours

Minors

Psychology minor

A minor in psychology requires 18 semester hours, including 6 advanced hours. Some fields may require more than the minimum 18 hours to provide adequate background for employment.

Faculty advisors are available to assist students who minor in psychology.

Department of Public Administration

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940-565-2165
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Web site: pahs.unt.edu/padm

Simon A. Andrew, Chair

Faculty

Programs of Study

The Department of Public Administration offers graduate programs leading to a PhD in public administration and management and a Master of Public Administration (MPA) degree. It also offers the BA in nonprofit leadership studies, the BA in urban policy and planning and a minor in public administration, nonprofit leadership studies, urban policy and planning and conflict resolution. Additionally, the program offers two certificates: one in conflict resolution and the other in volunteer and community resource management. The curriculum in the MPA program emphasizes a combination of courses and practical experience leading to entry-level management positions for students beginning their professional careers and job advancement for students already in government service. All faculty members have experience in government and maintain contact with managers and professional associations, such as the International City/County Management Association and the American Society for Public Administration. *The MPA at the University of North Texas is accredited by the Network of Schools of Public Policy, Affairs, and Administration (1029 Vermont Avenue NW, Suite 1100, Washington, DC 20005; 202-628-8965).* The curriculum conforms to NASPAA standards. Detailed information on the MPA program may be found in the *Graduate Catalog*.

Undergraduate students may wish to select public administration, nonprofit management, urban policy and planning, or conflict resolution as a complement to most any major. These areas of concentration are vital to the success of any undergraduate. Students may choose a number of options, for instance, a major in geography with a minor in urban policy and planning, a major in political science or emergency administration and planning with a minor in public administration, a major in applied arts and sciences with public administration, nonprofit management or conflict resolution as one of the professional development areas, or a minor in any of these areas. Consult the appropriate sections in this catalog for specific details.

Graduate Study

Master's and doctoral degree programs are available in public administration. For more information, consult the *Graduate Catalog*.

Majors

Nonprofit Leadership Studies, BA

This program is designed for students who are looking for opportunities to pursue a professional career serving in the nonprofit sector. The program is structured to accommodate students who transfer to UNT from a community college or for those who start as freshmen. A major strength of the program is its close affiliation with nonprofit organizations within the Dallas-Fort Worth region.

Candidates for the Bachelor of Arts degree with a major in nonprofit leadership studies must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements: 42 hours in the university core, 30 hours in the major, plus electives to total 120 required semester hours.

Major requirements

Completion of a minimum of 33 hours from the nonprofit leadership studies curriculum, of which 27 must be advanced.

Students should complete 3000-level courses before enrolling in 4000-level courses. Prerequisites are given in course descriptions and in the online schedule of classes at registrar.unt.edu/registration/schedule-of-classes.

Nonprofit leadership studies, 30 hours

Students must complete all major course requirements. Some courses in the major may be used in the Volunteer and Community Resource Management certificate. Please check the certificate for more information.

- PADM 3010 - Foundations of Philanthropy and Nonprofits
- PADM 3020 - Public Management
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers
- PADM 4210 - Introduction to Philanthropy and Fundraising
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4240 - Volunteer Management Concepts and Applications
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4260 - Volunteer Program Planning and Evaluation
- PADM 4300 - Nonprofit Leadership Capstone
- PADM 4310 - Community Service Internship

Other course requirements

Internship

The internship in the nonprofit leadership studies program is intended to prepare students for their careers by providing them real-world experience in the field. Experiential education is an ideal way to help students excel academically as well as professionally. Students register for PADM 4310 - Community Service Internship in either the fall or spring semester of their last year to gain hands-on experience in a supervised setting. Students must meet individual employer's requirements and obtain consent from the undergraduate program coordinator.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Must have a grade of C or better for entering the program
- A grade of C or better in all courses in the major
- Must have a minimum cumulative GPA of 2.0 for graduation

Minor

None required.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PADM 2100 - Cultural Competency in Urban Governance	3 hours	PADM 3020 - Public Management	3 hours
PADM 3010 - Foundations of Philanthropy and Nonprofits	3 hours	American History core	3 hours
American History core	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
Mathematics core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
COMM 2040 - Public Speaking	3 hours	PADM 4220 - Proposal Writing and Grants Administration	3 hours
PADM 4200 - Leadership Theory and Practice for Volunteer Managers	3 hours	Component Area Option B core	3 hours
PADM 4210 - Introduction to Philanthropy and Fundraising	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Life and Physical Sciences core	3 hours
Language, Philosophy and Culture core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
PADM 4240 - Volunteer Management Concepts and Applications	3 hours	PADM 4260 - Volunteer Program Planning and Evaluation	3 hours
PADM 4250 - Community Development and Collaborative Planning	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Elective	3 hours	PADM 4300 - Nonprofit Leadership Capstone	3 hours
Elective	3 hours	PADM 4310 - Community Service Internship	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Urban Policy and Planning, BA

This program is designed for students who are looking for opportunities to pursue a professional career in urban policy and planning. The program is structured to accommodate students who transfer to UNT from a community college or for those who start as freshmen. A major strength of the program is its close affiliation with city planning departments within the Dallas-Fort Worth region.

Candidates for the Bachelor of Arts degree with a major in urban policy and planning must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Requirements: 42 hours in the university core, 33 hours in the major, 12 hours of Urban Policy and Planning electives, plus 33 hours of free electives to total 120 required semester hours.

Major requirements, 11 courses or 36 hours

Completion of a minimum of 36 hours from the urban policy and planning curriculum.

Students should complete 2000 and 3000-level courses before enrolling in 4000-level courses. Prerequisites are given in course descriptions and in the online schedule of classes at registrar.unt.edu.

- PADM 2120 - Introduction to Urban and Regional Planning
- PADM 3210 - Population Demographics and Urban Planning
- PADM 3220 - Land Use and Transportation Planning
- PADM 3230 - Visualization of Urban Place, Space, and Policy
- PADM 3410 - Financial Aspects of Government
- PADM 4170 - Methods in Urban Planning Research and Analysis
- PADM 4180 - Urban Planning Studio
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4270 - Public and Nonprofit Grants Management
- PADM 4450 - Public Policy Analysis

General urban policy and planning electives, 12 hours

Select 4 courses or 12 hours from the following list:

- COMM 2040 - Public Speaking
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 4015 - Flood Plain Management
- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 4210 - Urban Geography
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4590 - Advanced GIS Programming
- PADM 2000 - Discover the City: Placemaking in the World
- PADM 2100 - Cultural Competency in Urban Governance
- PADM 2200 - Introduction to Conflict Resolution
- PADM 3020 - Public Management
- PADM 3100 - Workplace Conflict
- PADM 3200 - Creating Innovative Cities
- PADM 3420 - Bureaucracy and Public Policy
- PADM 4000 - Mediation
- PADM 4050 - Negotiation
- PADM 4130 - American Intergovernmental Relations
- PADM 4160 - Zoning and Land Use
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers
- PADM 4210 - Introduction to Philanthropy and Fundraising
- PADM 4260 - Volunteer Program Planning and Evaluation
- PADM 4900 - Special Problems
- PADM 4920 - Cooperative Education in Economic Development or Regional/Sectoral Analysis
- PSCI 4020 - Urban Politics

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Must have a minimum C or better for entering the program
- A grade of C or better in all courses in the major
- Must have a minimum cumulative GPA of 2.0 for graduation

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PADM 2100 - Cultural Competency in Urban Governance	3 hours	PADM 3220 - Land Use and Transportation Planning	3 hours
PADM 2120 - Introduction to Urban and Regional Planning	3 hours	Communication core	3 hours
Communication core	3 hours	Creative Arts core	3 hours
American History core	3 hours	American History core	3 hours
Mathematics core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
COMM 2040 - Public Speaking	3 hours	PADM 3230 - Visualization of Urban Place, Space, and Policy	3 hours
PADM 3210 - Population Demographics and Urban Planning	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Life and Physical Sciences core	3 hours
Language, Philosophy and Culture core	3 hours	PADM Urban Policy and Planning elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
PADM 4250 - Community Development and Collaborative Planning	3 hours	PADM 4170 - Methods in Urban Planning Research and Analysis	3 hours
PADM Urban Policy and Planning elective	3 hours	PADM 4220 - Proposal Writing and Grants Administration	3 hours
PADM Urban Policy and Planning elective	3 hours	Component Area Option B core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
PADM 3410 - Financial Aspects of Government	3 hours	PADM 4180 - Urban Planning Studio	6 hours
PADM 4450 - Public Policy Analysis	3 hours	PADM 4270 - Public and Nonprofit Grants Management	3 hours
PADM Urban Policy and Planning elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours		
Total	15 hours	Total	15 hours

Conflict Resolution minor

A minor in conflict resolution requires a total of 18 hours.

Four required courses

- PADM 2200 - Introduction to Conflict Resolution
- PADM 3100 - Workplace Conflict
- PADM 4000 - Mediation
- PADM 4050 - Negotiation

Plus two courses from the following list

Chosen in consultation with an academic advisor in the conflict resolution program:

- CJUS 2600 - Judicial and Legal Systems
- COMM 3320 - Communication and Conflict Management
- MGMT 3720 - Organizational Behavior
- PSCI 3200 - The American Legal System
- PSCI 4827 - Negotiation and Diplomacy

Nonprofit Leadership Studies minor

A minor in Nonprofit Leadership Studies minor requires 18 semester credit hours (6 courses).

In addition to earning a minor, students also have the opportunity to earn a certificate in volunteer and community resource management and prepare for a certificate in non-profit management leadership. Students wishing to minor in Nonprofit Leadership Studies should consult the PAHS academic advisor for specific program requirements.

Field courses, 18 hours

Students select 18 hours from the list of courses below.

- JOUR 3410 - Public Relations for Non-Profits
- PADM 3010 - Foundations of Philanthropy and Nonprofits
- PADM 3020 - Public Management
- PADM 4050 - Negotiation
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers **
- PADM 4210 - Introduction to Philanthropy and Fundraising
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4240 - Volunteer Management Concepts and Applications **
- PADM 4250 - Community Development and Collaborative Planning **
- PADM 4260 - Volunteer Program Planning and Evaluation **
- PADM 4270 - Public and Nonprofit Grants Management
- PADM 4300 - Nonprofit Leadership Capstone
- PADM 4310 - Community Service Internship
- SOWK 2430 - Policies, Issues and Programs in Social Welfare
- SOWK 3000 - Foundations of Interviewing and Interpersonal Skills

Notes

**Students pursuing the 12 semester credit hour certificate in Volunteer and Community Resource Management must take PADM 4240, PADM 4250 and PADM 4260, in addition to PADM 4200.

Public Administration minor

A minor in public administration requires a total of 18 credit hours.

Courses, 18 hours

Select 18 credit hours from the courses listed below.

- PADM 2100 - Cultural Competency in Urban Governance
- PADM 2120 - Introduction to Urban and Regional Planning
- PADM 3010 - Foundations of Philanthropy and Nonprofits
- PADM 3020 - Public Management
- PADM 3210 - Population Demographics and Urban Planning
- PADM 3410 - Financial Aspects of Government
- PADM 3420 - Bureaucracy and Public Policy
- PADM 4130 - American Intergovernmental Relations
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4450 - Public Policy Analysis

Urban Policy and Planning minor

This program is designed for students who are interested in planning, policy, local government issues, transportation planning, and a mixture of urban and suburban challenges.

A minor in urban policy and planning requires 18 semester credit hours, 9 hours of required courses plus 9 hours chosen from the courses listed below.

Requirements, 9 hours

- PADM 2120 - Introduction to Urban and Regional Planning
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4450 - Public Policy Analysis

Plus 9 hours selected from the list below

- EADP 3035 - Hazard Mitigation and Preparedness
- GEOG 3500 - Introduction to Geographic Information Systems
- PADM 3020 - Public Management
- PADM 3210 - Population Demographics and Urban Planning
- PADM 3220 - Land Use and Transportation Planning
- PADM 3230 - Visualization of Urban Place, Space, and Policy
- PADM 3410 - Financial Aspects of Government
- PADM 4160 - Zoning and Land Use
- PADM 4220 - Proposal Writing and Grants Administration
- PADM 4270 - Public and Nonprofit Grants Management

Conflict Resolution certificate

A certificate in conflict resolution requires a total of 12 hours.

Required courses, 12 hours

- PADM 2200 - Introduction to Conflict Resolution
- PADM 3100 - Workplace Conflict
- PADM 4000 - Mediation
- PADM 4050 - Negotiation

Volunteer and Community Resource Management certificate

The volunteer and community resource management certificate is an official UNT credential that appears on a student's transcript. It is designed for students who are specifically interested in working with volunteers to help address a particular community issue or need.

To obtain the undergraduate certificate, a student must complete 12 hours of course work—9 hours of required courses and 3 hours of electives.

Individuals interested in obtaining this certificate must be enrolled at UNT and indicate their intention of completing the certificate with their academic advisor. For more information on this certificate, please contact the program advisor.

Students should apply to receive the certificate in the semester they successfully complete all the necessary course work. Successful completion means that students must have a cumulative average of 3.0 (B) or higher in their four certificate courses. Any course with a final grade less than a C will not count toward this credential irrespective of the cumulative grade point average in certificate courses.

Applications for the certificate are available in the College of Public Affairs and Health Sciences Advising Office in Chilton Hall. Applications are first reviewed by the Advising Office and then submitted to the Registrar's Office for processing.

Required courses, 9 hours

- PADM 4240 - Volunteer Management Concepts and Applications
- PADM 4250 - Community Development and Collaborative Planning
- PADM 4260 - Volunteer Program Planning and Evaluation

Elective course, 3 hours

3 hours chosen from:

- PADM 4200 - Leadership Theory and Practice for Volunteer Managers
- PADM 4220 - Proposal Writing and Grants Administration

Department of Rehabilitation and Health Services

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Rachita Sharma, Chair
Naomi Meier, Coordinator of Public Health Programs (BS)
Kaiqi Zhou, Coordinator of Rehabilitation Programs (BS)
Paula Heller Garland, Coordinator of Addiction Programs (BS)

Faculty

The Department of Rehabilitation and Health Services offers three undergraduate degree programs in addiction studies, public health and a long-standing degree in rehabilitation studies. In addition to the BS degrees, the department offers minors in public health, rehabilitation studies, addiction studies, and applied gerontology. The department also offers two certificate programs: one in rehabilitation studies and the other in substance use treatment. Students who complete a BS in rehabilitation studies are eligible for the State of Texas Qualified Mental Health Provider-Community Services (QMHP-CS) credential. Comparatively, students who complete either the major or the minor in addiction studies are eligible to take the test for licensing as a chemical dependency counselor (LCDC) in the state of Texas.

Upon graduation, students are qualified for positions in a variety of nonprofit, governmental and for-profit programs serving individuals with mental health concerns, substance use disorders, intellectual and developmental disabilities and physical disabilities. Labor market trends forecast continued growth in human service professions. The undergraduate degrees also prepare students for entry into graduate programs in rehabilitation counseling, often with advanced standing if admitted to the Grad Track plan.

The department's undergraduate programs are structured to meet the needs and interests of students transferring from community colleges. Our majors are designed to allow students the opportunity to carefully select complimentary electives or to specialize in specific areas of rehabilitation, addiction, or public health services. Our college advisors can assist students in determining the best electives, minors and/or certificates available to meet their career objectives. Transfer students receive close advising to facilitate matriculation by maximizing their credits.

Extensive practical experience in community placements is combined with comprehensive classroom curricula to build an in-depth and well-rounded program. Students are able to receive highly individualized academic support from instructors. We require our students to engage in service learning and professional activities to gain experience and develop their skills. In all our undergraduate majors, students have the opportunity to participate in a practicum course that is designed to help them implement their academic learning in real-world settings.

A College of Public Affairs and Health Sciences degree program advisor plays a significant role in the development of a degree plan that meets the individual student's needs and interests. To find your major advisor, please visit the Advising webpage pahs.unt.edu/advising.

Programs of study

The department offers undergraduate majors in addiction studies, public health, and rehabilitation studies; minors; and undergraduate academic certificates. (See the complete list, below.)

Majors

- Addiction Studies, BS
- Public Health, BS
- Rehabilitation Studies, BS
- Rehabilitation Studies, BS with Grad Track option leading to Rehabilitation Counseling, MS

Minors

- Addiction Studies
- Public Health
- Rehabilitation Studies

Undergraduate Academic Certificates

- Rehabilitation Studies
- Substance Use Disorders Treatment

Rehabilitation scholarships

Students majoring in rehabilitation studies are eligible to apply for the Ken Miner Scholarship, the Fort Worth TRA Scholarship and the Dan Minahan Memorial Scholarship. Applications are available on the department website. Students interested in applying for these scholarships should contact the department.

Majors

Addiction Studies, BS

Paula Heller Garland, Coordinator of Undergraduate Addiction Program

The BS in addiction studies prepares students and professionals who wish to continue career development to work directly with individuals with substance use disorders and process addictions (e.g., gambling, disordered eating, etc.) in order to facilitate long-term recovery, autonomy and improved quality of life.

Candidates for the Bachelor of Science degree with a major in addiction studies must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester credit hours. Completion of 42 hours in the University Core Curriculum in the Degree and Program Requirements section of the catalog and the College of Public Affairs and Health Sciences Degree Requirements, 36 hours in the major and 12 hours in electives. Students should complete an additional 30 hours of free electives. Prerequisites are given in course descriptions and in the online schedule of classes at registrar.unt.edu/index.html.

Major requirements

Addiction studies, 30 hours

- ADDS 3975 - Addictions
- ADDS 4075 - Drugs and Alcohol
- ADDS 4175 - Addiction Treatment Models
- ADDS 4275 - Alcohol, Drugs and Disability
- ADDS 4375 - Addiction Counseling and Groups
- ADDS 4575 - Current Issues in Substance Use Disorders
- ADDS 4675 - Addictions Counseling Competencies
- ADDS 4775 - Ethical and Professional Issues in Addiction Practices
- ADDS 4881 - Addictions Practicum

Rehabilitation studies, 6 hours

- RHAB 3000 - Active Listening in the Helping Professions
- RHAB 4500 - Assessment in Rehabilitation

Other course requirements

None.

Minor

Minor is optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Completion of at least 300-hours of field work in ADDS Addictions Practicum.
- A minimum Grade Point Average of 2.3 is required for graduation.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
Communication core	3 hours	ADDS 4075 - Drugs and Alcohol	3 hours
Government/Political Science core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Mathematics core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ADDS 3975 - Addictions	3 hours	ADDS 4175 - Addiction Treatment Models	3 hours
RHAB 3000 - Active Listening in the Helping Professions	3 hours	American History core	3 hours
American History core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ADDS 4275 - Alcohol, Drugs and Disability	3 hours	ADDS 4775 - Ethical and Professional Issues in Addiction Practices	3 hours
Creative Arts core	3 hours	RHAB 4500 - Assessment in Rehabilitation	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADDS 4375 - Addiction Counseling and Groups	3 hours	ADDS 4575 - Current Issues in Substance Use Disorders	3 hours
ADDS 4675 - Addictions Counseling Competencies	3 hours	ADDS 4881 - Addictions Practicum	6 hours
Elective	3 hours	Component Area Option A core	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours		
Total	15 hours	Total	15 hours

Public Health with a concentration in Health Professions, BS

Offered by the University of North Texas (UNT) in collaboration with the University of North Texas Health (UNT Health)

Naomi Meier, Public Health Program Coordinator

The Bachelor of Science in Public Health (BSPH) with a Health Professions Concentration is designed for students who are preparing to pursue a Bachelor of Science in Nursing (BSN) and who are interested in improving the health of communities through both clinical and population-based approaches.

This degree program equips students with the foundational knowledge and skills needed to identify, prevent, and solve community health problems. Public health draws from the social, behavioral, and health sciences to prepare students to promote health and well-being across diverse populations and settings.

The Health Professions Concentration provides a structured academic pathway for BSPH students who intend to apply to the BSN program at UNT Health. Students may apply for early decision admission to the BSN program after completing 96 semester credit hours (SCH) of the BSPH curriculum and meeting specific program eligibility requirements. Up to 24 SCH of BSN coursework may be transferred back to UNT and applied toward completion of the BSPH degree.

Key Features:

- Strong foundation in public health principles and population health
- Focused preparation and opportunity for early admission to the BSN program at UNT Health
- Up to 60 SCH of BSPH coursework accepted toward BSN degree requirements
- Coordinated advising and support across both institutions

This program is particularly well-suited for students who are committed to building healthier communities in the DFW area, nationally, and globally. Housed within an academic department that values interdisciplinary collaboration, the concentration supports students in developing the competencies necessary to address complex health issues that affect individuals and populations across the lifespan.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in public health.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science in public health degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

Completion of 39 hours in the major and 18 hours in the Health Professions concentration.

Prerequisites are given in course descriptions and in the online schedule of classes.

Public health core, 39 hours

- PUBH 1010 - Introduction to Public Health
- PUBH 2015 - Research Methods in Public Health
- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 3020 - Community Health Education
- PUBH 3025 - Environmental Health
- PUBH 3030 - Global Public Health
- PUBH 3040 - Epidemiological Concepts and Methods for Public Health
- PUBH 4015 - Ethics in Public Health
- PUBH 4020 - Biostatistics
- PUBH 4050 - Public Health and Health Policy
- PUBH 4060 - Public Health Management and Leadership
- PUBH 4070 - Public Health Informatics
- PUBH 4080 - Public Health Capstone

Health Professions Concentration, 18 hours

Students interested in completing the BS Public Health, with a concentration in Health Professions, as a pathway to the Nursing, BS, should complete the following courses.

- HDFS 1013 - Human Development
- NUTR 1450 - Principles of Nutrition
- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory
- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Completion of all BSPH degree requirements, including Health Profession Concentration coursework
- Minimum 30 SCH completed in residence at UNT
- Minimum 2.0 cumulative GPA
- Minimum 2.5 major GPA
- Courses transferred from UNT Health must be completed with a grade of "C" or better

Five-year degree plan

Please contact department and academic advisors for a sample five-year degree plan to complete the BSPH and the BSN. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Public Health, BS

Dr. Naomi Meier, Public Health Program Coordinator

This degree program prepares students interested in gaining the knowledge to identify, prevent and solve community health problems. Public health prepares students with knowledge and skills to promote health. It draws on knowledge from the social, behavioral and health sciences.

Our degree program is well suited for students invested in building health communities here in the DFW area, nationally and globally. We are situated in an academic department which promotes interdisciplinary solutions to health issues that affect diverse communities across the lifespan.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in public health.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science in public health degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

Completion of 42 hours in the university core, 39 hours in the major, 9 hours in public health electives, plus 30 hours of general electives to total 120 required semester hours.

Prerequisites are given in course descriptions and in the online schedule of classes.

Public Health core, 39 hours

- PUBH 1010 - Introduction to Public Health
- PUBH 3040 - Epidemiological Concepts and Methods for Public Health
- PUBH 2015 - Research Methods in Public Health
- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 3020 - Community Health Education
- PUBH 3025 - Environmental Health
- PUBH 3030 - Global Public Health
- PUBH 4015 - Ethics in Public Health
- PUBH 4020 - Biostatistics
- PUBH 4050 - Public Health and Health Policy
- PUBH 4060 - Public Health Management and Leadership
- PUBH 4070 - Public Health Informatics
- PUBH 4080 - Public Health Capstone

Public Health electives, 9-11 hours

Students may select courses within one of the areas below to tailor their degree with an emphasis of study.

- COMM 3220 - Health Communication
- PHIL 2600 - Ethics in Science
- SOWK 4430 - Applied Social Welfare Policy
- PSYC 3620 - Developmental Psychology

Emphasis in Disaster Response

- EADP 3010 - Principles of Emergency Management
- EADP 3045 - Disaster Response and Recovery
- EADP 4010 - Public Health and Disasters

- EADP 4050 - Social Vulnerability in Disasters
- EADP 4090 - Terrorism and Emergency Management
- GEOG 3120 - Medical Geography
- GEOG 4580 - GIS in Health
- PADM 4200 - Leadership Theory and Practice for Volunteer Managers

Emphasis in Addiction Service

- ADDS 4075 - Drugs and Alcohol
- ADDS 4275 - Alcohol, Drugs and Disability
- RHAB 3000 - Active Listening in the Helping Professions

Emphasis in Aging Services

- AGER 4560 - Minority Aging
- AGER 4750 - Sexuality and Aging
- AGER 4800 - The Social Context of Aging: Global Perspectives
- SOCI 3120 - Sociology of Health and Illness

Emphasis in Disability and Rehabilitation

- HDFS 1013 - Human Development
- RHAB 3100 - Disability and Society
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- RHAB 4300 - Introduction to Psychiatric Rehabilitation

Emphasis in Human Physiology

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory
- PHIL 3440 - Bioethics

Emphasis in Medical Anthropology

- ANTH 4210 - Culture and Human Sexuality
- ANTH 4220 - Anthropology in Public Health
- ANTH 4400 - Environmental Anthropology

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

Minimum major GPA of 2.5 required at the end of program in order to graduate. Students who do not have a minimum major GPA of 2.5 will take additional courses to bring up the GPA.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
PUBH 1010 - Introduction to Public Health	3 hours	PUBH 3040 - Epidemiological Concepts and Methods for Public Health	3 hours
Communication core	3 hours	Communication core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Mathematics core	3 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
PUBH 2015 - Research Methods in Public Health	3 hours	PUBH 3020 - Community Health Education	3 hours
PUBH 3010 - Social Justice and Behavioral Foundations in Public Health	3 hours	PUBH 4015 - Ethics in Public Health	3 hours
American History Core	3 hours	American History Core	3 hours
Life and Physical Sciences core	3 hours	Creative Arts core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
PUBH 3025 - Environmental Health	3 hours	PUBH 4020 - Biostatistics	3 hours
PUBH 3030 - Global Public Health	3 hours	PUBH 4060 - Public Health Management and Leadership	3 hours
Language, Philosophy and Culture core	3 hours	PUBH 4070 - Public Health Informatics	3 hours
Public Health elective	3 hours	Public Health elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
PUBH 4050 - Public Health and Health Policy	3 hours	PUBH 4080 - Public Health Capstone	3 hours
Component Area Option A core	3 hours	Component Area Option B core	3 hours
Public Health elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Rehabilitation Studies, BS

Kaiqui Zhou, Coordinator of Undergraduate Rehabilitation Program

Students who graduate with a Bachelor of Science with a major in rehabilitation studies often pursue careers where they serve individuals who have physical, mental and emotional disabilities and help them become productive and active citizens. This program provides extensive practical experience in community placements.

Candidates for the Bachelor of Science degree with a major in rehabilitation studies must meet the following requirements:

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences requirements.

Major requirements

27 hours in rehabilitation studies:

- RHAB 3000 - Active Listening in the Helping Professions
- RHAB 3100 - Disability and Society
- RHAB 3900 - Case Management in Rehabilitation
- RHAB 4100 - Rehabilitation Service Delivery Systems
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- RHAB 4300 - Introduction to Psychiatric Rehabilitation
- RHAB 4500 - Assessment in Rehabilitation
- RHAB 4700 - Employment Services
- RHAB 4880 - Rehabilitation Practicum

Plus an addictions course, 3 hours

ADDS 4275 is recommended for all majors.

Other course requirements

None.

Minor requirements

Minor of 18 hours, of which 6 must be advanced, may be selected with the approval of the academic advisor. Students are advised to give careful consideration to career goals when selecting their minor area of study. A minor is not required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Demonstration of at least 200 hours of field work and a minimum major grade point average of 2.3 is required for graduation

Students interested in majoring in rehabilitation studies should make an appointment with the rehabilitation studies academic advisor.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
Communication core	3 hours	RHAB 3100 - Disability and Society	3 hours
Government/Political Science core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Mathematics core	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
RHAB 3000 - Active Listening in the Helping Professions	3 hours	RHAB 4200 - Physical and Psychosocial Aspects of Disability	3 hours
American History core	3 hours	American History core	3 hours
Creative Arts core	3 hours	Language, Philosophy and Culture core	3 hours
Life and Physical Sciences core	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ADDS 4275 - Alcohol, Drugs and Disability	3 hours	RHAB 4100 - Rehabilitation Service Delivery Systems	3 hours
RHAB 3900 - Case Management in Rehabilitation	3 hours	RHAB 4300 - Introduction to Psychiatric Rehabilitation	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
RHAB 4500 - Assessment in Rehabilitation	3 hours	RHAB 4880 - Rehabilitation Practicum	3 hours
RHAB 4700 - Employment Services	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Rehabilitation Studies, BS with grad track option leading to Rehabilitation Counseling, MS

Kaiqui Zhou, Coordinator of Undergraduate Rehabilitation Program

Melissa Gaa, Rehabilitation Counseling Graduate Program Coordinator

Rehabilitation studies undergraduate students accepted into the grad track pathway will first earn their BS with a major in rehabilitation studies and, following successful completion of the graduate program, their MS with a major in rehabilitation counseling.

Admission requirements and program policies

The admissions criteria for students applying to the grad track pathway is consistent with the admission processes and procedures for all applicants to our graduate program. Applicants are required to have completed at least 75 credit hours of their bachelor's degree.

Applicants to the grad track pathway will submit:

- An application designed for grad track pathway applicants;
- A signed copy of the Conditional Admission and Advisor Course Approval Form (available from the Toulouse Graduate School);
- A current copy of their unofficial transcript;
- A self-statement of purpose as to why they are interested in the grad track pathway, as well as addressing the rehabilitation counseling program required self-statement questions;
- A resume of their work experience;
- Two letters of recommendation (one academically-related and one employment-related); and
- Completion of an interview with two faculty members from our department.

Successful applicants will meet the definition of "Exceptional Undergraduate Student." They will be those students who:

1. Are in their junior year of the rehabilitation studies program and have completed 90 credit hours;
2. Have a cumulative GPA of 3.5 or higher at the time of their application; and
3. Whose resume, self-statement, letters of recommendation and demonstration of interpersonal and professional skills during the interview are considered to be of high quality by the faculty in the department.

As is the process for graduate program applicants, faculty will conduct a holistic review of each applicant to the grad track pathway. The holistic review is guided by a rubric created for graduate program applicants that provides an assessment of each applicant's:

1. Academic/intellectual merit (e.g., assessment of GPA, quality of letters of recommendation, quality of written self-statement);
2. Employment experience (e.g., employment-related letters of recommendation, work experience in the field), interview (demonstration of communication skills, professionalism, appropriate self-awareness, interpersonal skills and appropriate self-disclosure); and
3. Broader impact (e.g., potential to contribute to profession, discipline and/or society, and potential to advance diversity by broadening global understanding and/or diverse points of view).

Faculty who conduct the interview, review and rank the applicant's application as being in the top 5% (excellent), 10% (very good), 25% (good), 50% (average) or less than 50% (below average) and then present the application to the admission committee in the department. Only applicants to the grad track pathway program who rank in the top 5-10% and have the approval of the undergraduate and graduate coordinators, as well as the student's academic advisor and the majority of faculty present at the meeting in which applications are reviewed, will be accepted into the grad track pathway. Applications will be accepted until July 15 for the Fall semester grad track pathway classes and November 30 for the Spring semester grad track pathway courses.

Successful applicants are conditionally admitted to the grad track pathway after completing 90 credit hours in their undergraduate degree program. Acceptance to the grad track pathway does not imply that the student has been fully admitted into the graduate school, however, and the student must first complete his or her bachelor's degree before acceptance into the graduate program. Applicants will be provided with a document that explains the application process and will state that, if accepted into the grad track pathway, the student understands that he or she is only conditionally accepted into the graduate program and must maintain a 3.2 GPA and be in good standing in the program before being accepted into the graduate program. Students whose GPA falls to between a 3.2 and 2.8 will be required to submit a new application to the graduate program (including a new statement of purpose, letters of recommendation, resume and interview) as well as submit current GRE scores in order to be reconsidered for the graduate program.

Program requirements

- RHAB 5700 - Ethical and Professional Foundations in Rehabilitation Counseling (replaces RHAB 4100 - Rehabilitation Service Delivery Systems)
- RHAB 5732 - Principles of Psychiatric Rehabilitation and Recovery (replaces RHAB 4300 - Introduction to Psychiatric Rehabilitation)
- RHAB 5735 - Alcohol and Other Substance Use Counseling Models (replaces ADDS 4275 - Alcohol, Drugs and Disability)
- RHAB 5770 - Rehabilitation Research and Program Evaluation (replaces RHAB 4500 - Assessment in Rehabilitation)

Courses available for credit as an upper-level elective:

- RHAB 5715 - Disability Issues in Human Development (3 credit hours)
- RHAB 5718 - Transition Issues in Rehabilitation (3 credit hours)

All remaining courses for Rehabilitation Studies, BS must be completed.

Minors

Addiction Studies minor

Paula Heller Garland, Coordinator of Undergraduate Addiction Program

The minor in addiction studies is designed for students interested in working with persons experiencing addictive disorders. The minor may fulfill the educational requirements for licensure as a chemical dependency counselor. Courses cover all levels of alcohol and drug use, as well as other behavioral addictions; their symptomatology, personal and social impacts, and treatment.

Effective September 1, 2017, HB 1508 created new laws that require entities that provide educational programs leading to an occupational license to notify all applicants and enrollees of the implications of a felony conviction which may make you ineligible for a license upon program completion. The law requires that this information be provided to all persons who are enrolled or apply in a counseling or related program without regard to whether the person has been convicted of a criminal offense.

You may review current guidelines used by the Texas Education Agency to determine the eligibility of the person to be licensed on the TEA's website. You also have a right to request a criminal history

evaluation letter from the TEA and the process and form available online at tea.texas.gov/educators/investigations/preliminary-criminal-history-evaluation-faqs.

Required courses

- ADDS 3975 - Addictions

  or

- ADDS 4075 - Drugs and Alcohol and
- ADDS 4175 - Addiction Treatment Models

Plus four of the following

- ADDS 4275 - Alcohol, Drugs and Disability
- ADDS 4375 - Addiction Counseling and Groups
- ADDS 4675 - Addictions Counseling Competencies
- RHAB 4500 - Assessment in Rehabilitation

Licensure

Students seeking licensure are strongly advised to take:

- ADDS 4375 - Addiction Counseling and Groups
- ADDS 4675 - Addictions Counseling Competencies
- RHAB 4500 - Assessment in Rehabilitation

Public Health minor

Naomi Meier, Public Health Program Coordinator

The public health minor has been designed for students looking for an introduction to the field and its disciplines. The curriculum offers complementary studies to students who are on a pre-medical track; those majoring in fields that incorporate a health focus, such as rehabilitation studies or kinesiology; or those interested in environmental science or public policy. The course work covers the concepts and applications of public health in a variety of the specific disciplines related to overall community health outcomes.

Requirements

The minor is 18 hours. It includes 5 required courses and one elective option.

- PUBH 1010 - Introduction to Public Health
- PUBH 3040 - Epidemiological Concepts and Methods for Public Health
- PUBH 3010 - Social Justice and Behavioral Foundations in Public Health
- PUBH 3025 - Environmental Health
- PUBH 4050 - Public Health and Health Policy

Elective options

Students must select one elective from the remaining public health core courses.

- PUBH 3020 - Community Health Education
- PUBH 3030 - Global Public Health
- PUBH 4015 - Ethics in Public Health
- PUBH 4020 - Biostatistics
- PUBH 4060 - Public Health Management and Leadership
- PUBH 4070 - Public Health Informatics
- PUBH 4080 - Public Health Capstone (may only be taken in last semester of senior year)
- PUBH 4900 - Special Problems

Rehabilitation Studies minor

Kaiqui Zhou, Coordinator of Undergraduate Rehabilitation Program

Because of its compatibility with other human service fields, rehabilitation provides an appropriate minor for students majoring in such areas as psychology, social work, recreation, aging, health education and criminal justice.

Requirements

- RHAB 3100 - Disability and Society
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- RHAB 4700 - Employment Services
- Plus three other rehabilitation courses selected by the student and the advisor.

Undergraduate Academic Certificates

Rehabilitation Studies certificate

The undergraduate academic certificate in rehabilitation studies provides students with the fundamental knowledge and skills for interaction with individuals with disabilities. This certificate is recommended for students in other disciplines who seek a basic understanding of the disability experience or who wish to add disability-related knowledge and skills to their professional preparation.

All courses are available online.

Required courses, 12 hours

Students must complete four courses, including:

- RHAB 3100 - Disability and Society
- RHAB 3900 - Case Management in Rehabilitation
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- RHAB 4700 - Employment Services

Substance Use Disorders Treatment certificate

Paula Heller Garland, Coordinator of Undergraduate Addiction Program

The undergraduate academic certificate in substance use treatment provides a basic foundation for becoming a licensed chemical dependency counselor (for information about waivers of educational requirements under §140.405, visit www.hhs.texas.gov/business/licensing-credentialing-regulation/professional-licensing-certification-compliance/licensed-chemical-dependency-counselor-program and navigate to “Rules and Regulations”). Completion of the certificate also contributes to skills applicable in any human service field.

Required courses, 12 hours

- ADDS 4075 - Drugs and Alcohol
- ADDS 4175 - Addiction Treatment Models
- ADDS 4675 - Addictions Counseling Competencies
- RHAB 4500 - Assessment in Rehabilitation

Department of Social Work

Main Office
Chilton Hall, Suite 300

Mailing address:
1155 Union Circle #305370
Denton, TX 76203-5017
940-565-3437
Web site: pahs.unt.edu/sowk

Faculty

Social work addresses societal concerns and the well-being of people to ensure they have equal access to resources, services and opportunities. Social workers encourage change by striving to end discrimination, oppression, poverty and other forms of social injustice. They work in many different settings, including:

- child welfare and family service agencies
- community mental health or substance abuse treatment centers
- nonprofit, government or private human service programs
- retirement centers, nursing homes or other aging programs for older people and their families
- school or community programs to meet the needs of children

Our programs provide a solid foundation in the knowledge, skills and values necessary for the social work field and prepares students for the required state licensing exam.

We offer many opportunities to work with the community, practice skills, and get involved in social work organizations and network. As part of our curriculum, we have service-learning projects in the introductory courses and practice courses that apply classroom knowledge to real-life situations.

Our faculty members are well-known researchers and practitioners with experience working in diverse areas. Their research has been published in recognized journals and presented regularly at national conferences.

The Social Work programs are accredited by the Council on Social Work Education (333 John Carlyle Street, Suite 400; Alexandria, VA 22314; telephone 703-683-8080). This accreditation means we meet or exceed strict academic standards for excellence in social work education.

Pre-majors

Social Work pre-major

Pre-major courses and requirements

The Bachelor of Social Work degree program is fully accredited by the Council on Social Work Education (333 John Carlyle Street, Suite 400, Alexandria, VA 22314; 703-683-8080).

Students may indicate an intention of majoring in social work at any point during the early part of their academic career by declaring a pre-social work major. They may consult with the College of Public Affairs and Health Sciences social work advisors regarding degree requirements at any time. However, formal acceptance into the social work major occurs only after successful completion of the designated pre-major courses, completion of a semester-by-semester course plan with the social work advisor, and submission and approval of a formal application for admission. Applications to the major are due on approximately the 30th calendar day of the term/semester in which pre-major courses are in process or are completed. Applications are accepted during the fall and spring terms/semesters only. The number of available slots is limited, so admission may be restricted. An application form and instructions are available on the department website: pahs.unt.edu/academics/sowk-bsw. Students must adhere to the program's course sequencing and prerequisite schedule.

Pre-major courses, 9 hours

- SOWK 1450 - Introduction to Social Work (with a minimum grade of C)
- SOWK 2430 - Policies, Issues and Programs in Social Welfare (with a minimum grade of C)
- SOWK 3000 - Foundations of Interviewing and Interpersonal Skills (with a minimum grade of C)

Majors

Social Work, BSW

The Bachelor of Social Work degree program prepares students for a career in helping vulnerable populations. Students learn the professional skills necessary to assist people in overcoming challenges associated with abuse, poverty, homelessness, addiction, disability, illness and discrimination. Social workers practice in a variety of areas including health care, child welfare, substance abuse treatment, aging and criminal justice.

Program Requirements

Application to the major and pre-major courses

The Bachelor of Social Work degree program is fully accredited by the Council on Social Work Education (333 John Carlyle Street, Suite 400, Alexandria, VA 22314; 703-683-8080).

Students may indicate an intention of majoring in social work at any point during the early part of their academic career by declaring a pre-social work major. They may consult with the College of Public Affairs and Health Sciences social work advisors regarding degree requirements at any time. However, formal acceptance into the social work major occurs only after successful completion of the designated pre-major courses, degree audit, a semester-by-semester course plan with the social work advisor, and submission of a formal application for admission. Applications to the major are due on approximately the 30th calendar day of the term/semester in which pre-major courses are in process or are completed. Applications are accepted during the fall and spring terms/semesters only. The number of available slots is limited, so admission may be restricted. An application form and instructions are available on the website. Students must adhere to the program's course sequencing and prerequisite schedule. The degree program culminates with a field-based practicum that consists of a required 12-credit-hour block. During the practicum, students practice social work skills in an agency placement for approximately 32–35 hours per week over the course of one semester, for a total of no less than 480 hours of practice.

Pre-major courses, 9 hours

- SOWK 1450 - Introduction to Social Work (with a minimum grade of C)
- SOWK 2430 - Policies, Issues and Programs in Social Welfare (with a minimum grade of C)
- SOWK 3000 - Foundations of Interviewing and Interpersonal Skills (with a minimum grade of C)

Degree requirements

Candidates for the Bachelor of Social Work must meet the following requirements:

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Social Work degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Public Affairs and Health Sciences.

Major requirements

The social work major consists of 54 hours in social work and related required courses.

Other course requirements

Students are required to follow social work course sequencing as outlined below; however, students may choose to also take outside courses while enrolled in the program.

Pre-major requirements

- Finish pre-major courses: SOWK 1450, SOWK 2430, SOWK 3000.
- Obtain a degree audit from the College of Public Affairs and Health Sciences advising office.
- Complete a semester-by-semester plan from social work program advisor.
- Submit application to the social work program.

First semester after admission to the major (junior year)

- SOWK 3500 - Human Behavior and the Social Environment I
- SOWK 3610 - Social Work Practice I
- SOWK 3870 - Social Work Research and Practice
- SOWK 4540 - Human Diversity for the Helping Professions

Second semester after admission to the major (junior year)

- SOWK 4000 - Ethics and Professionalism in Practice
- SOWK 4400 - Social Work Practice II
- SOWK 4500 - Human Behavior and the Social Environment II
- SOWK 4880 - Quantitative Methods of Social Research

Third semester after admission to the major (senior year)

- SOWK 4430 - Applied Social Welfare Policy
- SOWK 4610 - Social Work Practice III

Fourth semester after admission to the major (senior year)

- SOWK 4870 - Social Work Integrative Seminar
- SOWK 4875 - Social Work Field Practicum

Social Work Elective

Select one of the following:

- SOWK 3525 - Violence in Families
- SOWK 4325 - The Intersection of Trauma and Substance Use
- SOWK 4700 - Child Welfare Practice and Services
- SOWK 4725 - Theory and Practice in Mental Health

Minor

None required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Public Affairs and Health Sciences.

Other requirements

- Must make formal application for acceptance to the program;
- Must have a minimum grade of C in all social work courses;
- Must have a minimum 2.5 GPA for admission to the major;
- Must adhere to program policies and course sequencing;
- Must adhere to the National Association of Social Workers (NASW) and State of Texas codes of ethics.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
SOWK 1450 - Introduction to Social Work	3 hours	MATH 1680 - Elementary Probability and Statistics	3 hours
Communication core	3 hours	SOWK 2430 - Policies, Issues and Programs in Social Welfare	3 hours
Government/Political Science core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
American History core	3 hours	SOWK 3000 - Foundations of Interviewing and Interpersonal Skills	3 hours
Creative Arts core	3 hours	American History core	3 hours
Component Area Option A core	3 hours	Language, Philosophy and Culture core	3 hours
Elective	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
SOWK 3500 - Human Behavior and the Social Environment I	3 hours	SOWK 4000 - Ethics and Professionalism in Practice	3 hours
SOWK 3610 - Social Work Practice I	3 hours	SOWK 4400 - Social Work Practice II	3 hours
SOWK 3870 - Social Work Research and Practice	3 hours	SOWK 4500 - Human Behavior and the Social Environment II	3 hours
SOWK 4540 - Human Diversity for the Helping Professions	3 hours	SOWK 4880 - Quantitative Methods of Social Research	3 hours
Elective	3 hours	Social Work Elective	3 hours
		Elective	3 hours
Total	15 hours	Total	18 hours

Year 4

Semester 1		Semester 2	
SOWK 4430 - Applied Social Welfare Policy	3 hours	SOWK 4870 - Social Work Integrative Seminar	3 hours
SOWK 4610 - Social Work Practice III	3 hours	SOWK 4875 - Social Work Field Practicum	9 hours
Component Area Option B core	3 hours		
Elective	3 hours		
Elective	3 hours		
Total	15 hours	Total	12 hours

Minors

Undergraduate Academic Certificates

Human Services minor

Human services is an emerging professional identity and there is a high demand for trained human service workers in many settings.

Required courses

A minor in human services requires the completion of:

- RHAB 3000 - Active Listening in the Helping Professions
- SOWK 1450 - Introduction to Social Work

Plus four courses selected from

- ADDS 4075 - Drugs and Alcohol
- ADDS 4275 - Alcohol, Drugs and Disability
- RHAB 3100 - Disability and Society
- RHAB 3900 - Case Management in Rehabilitation
- RHAB 4100 - Rehabilitation Service Delivery Systems
- RHAB 4200 - Physical and Psychosocial Aspects of Disability
- SOWK 2430 - Policies, Issues and Programs in Social Welfare
- SOWK 3500 - Human Behavior and the Social Environment I
- SOWK 3870 - Social Work Research and Practice
- SOWK 4540 - Human Diversity for the Helping Professions

Area requirements

Students must take courses from at least two of the following areas: social work, addictions and rehabilitation studies.

Trauma-Informed Care certificate

Trauma is a major issue in society that results in increased risk across a number of societal concerns. Trauma-informed care is a powerful framework that offers hope in addressing these issues. It provides a means to better recognize the symptoms of trauma, understand its impact, and develop the knowledge base and skills to address the needs of individuals with trauma histories.

This certificate is interdisciplinary and can benefit a wide range of professions interacting with individuals who have experienced trauma (for example, social work, rehabilitation, psychology majors, criminal justice personnel, healthcare professionals, educators and many other professional domains). It consists of four required courses across the domains of mental health, substance use, child welfare and family violence (total of 12 credit hours).

Requirements

- SOWK 3525 - Violence in Families
- SOWK 4325 - The Intersection of Trauma and Substance Use
- SOWK 4700 - Child Welfare Practice and Services
- SOWK 4725 - Theory and Practice in Mental Health

College of Science

Mailing address:
1155 Union Circle #311365
Denton, TX 76203-5017
Web site: cos.unt.edu

Advising Center
Web site: cos.unt.edu/advising

Ed Dzialowski, Interim Dean
Lee Hughes, Associate Dean

Faculty

Mission

The mission of the College of Science at the University of North Texas is to provide a supportive, inclusive, and collaborative environment for students, faculty, and staff, integrating a contemporary education in science with the pursuit of research at the forefront of the natural and mathematical sciences.

Vision

The College of Science at the University of North Texas will be known for its:

- Internationally recognized excellence in scientific research and discovery;
- Top quality science education for future scientists, teachers, health professionals, and other world citizens;
- Essential role as a pillar of the university's reputation as a top tier research institution;
- Successful promotion of scientific literacy, innovation, and economic development; and
- Community of belonging that supports all members in achieving excellence in research and education to serve a multicultural society.

The college consists of the following departments and areas of study:

- Biological Sciences
- Chemistry
- Forensic Science
- Mathematics
- Physics
- Teach North Texas

College of Science admissions requirements

Admission into the College of Science is contingent on clear admission to the university.

To be admitted into the College of Science, an applicant (freshman, transfer, international, or post-baccalaureate) must be eligible to enroll in MATH 1650 (Precalculus) or in a higher-level math class that has MATH 1650 as part of its prerequisite chain. Enrollment in mathematics classes for entering freshmen will be determined in accordance with criteria established by the Department of Mathematics. The UNT mathematics department web site lists links to preparation tests for the UNT math placement exam (math.unt.edu/undergraduate/placement_test).

Applicants who do not meet the above requirements will be provisionally admitted as pre-College of Science (PCOS). PCOS students are welcome to visit the COS Office for Student Advising for assistance. Full admission in the College of Science will be granted after passing MATH 1100 (Algebra) with a grade of C or higher or else showing proficiency in algebra, as described above.

For PCOS students whose degree plans do not require MATH 1710 (Calculus I), earning a C or higher in MATH 1180 (in lieu of MATH 1100) will be sufficient for admission into the College of Science.

After admission criteria are met by the applicant, the student will be accepted as a major in his or her program of study.

Academic advising

Academic advisors and counselors are available in the College of Science Advising Center to assist students in the development and pursuit of meaningful educational goals.

The College of Science Advising Center has trained academic advisors who assist undergraduate students in the college. The academic advisors prepare students' degree audits, assist majors with core curriculum issues and requirements for their chosen major, and process graduation applications. Faculty advisors in the department assist the students in their major.

Degree requirements

The basic structure of all bachelor's degrees consists of a large set of general education requirements common to all degrees (University Core Curriculum – 42 hours at UNT), a small set of requirements unique to the school or college offering the degree (college requirements), a set of requirements defining a major field of study as determined by a department (major/professional/concentration – a minimum of 24 hours, including 12 advanced hours earned at UNT), and electives chosen freely or in consultation with an advisor to reach the minimum number of hours required for the degree. A lesser field of study, a minor (minimum of 18 hours), is optional unless specified in the degree requirements. All degrees require that 30 hours be earned at UNT and that at least 36 hours are at the advanced level (3000- and 4000-level courses).

Degree audit

A degree audit is an official student record that lists all degree requirements and shows how the courses completed meet those requirements. Students should review the degree audit with their academic advisor within the first semester of attendance.

Students with transfer coursework and/or credit-by-examination must submit the official transcripts from their previous institutions or official test scores to be evaluated and added to the degree audit.

Students may view the degree audit online at mydegreeaudit.unt.edu to determine their degree progression and plan for each semester. Academic advisors in the COS Advising Center are available to assist students with questions. Students are encouraged to visit cos.unt.edu/advising for information on meeting with an advisor and to find additional academic planning resources.

Programs of study

The college offers the following undergraduate degrees:

- Bachelor of Arts
- Bachelor of Science
- Bachelor of Science in Biochemistry, Biology, Chemistry, Mathematics, Medical Laboratory Sciences and Physics;
- Professional, preprofessional and specialized programs
- Minors in a variety of disciplines – see individual departments
- Academic certificates

Multiple Programs of Study

Students pursuing two or more majors offered by the College of Science must meet the following requirements:

- Selecting two or more majors from the same academic department is prohibited.
- For each major offered by the College of Science, a student must take at least 24 unique hours that do not count toward the other major(s) in the College of Science that the student is pursuing. Of these 24 unique hours, at least 12 hours must be advanced.

Students may not earn a major and a minor from the same academic department unless the minor is specifically included in the requirements of the major.

Students are permitted to earn a major and an academic certificate from the same academic department.

Degree Requirements

The following requirements are in addition to or a specification of the University Core Curriculum requirements for Bachelor of Arts degrees and some Bachelor of Science degrees.

Bachelor of Arts degree requirements

Candidates for the Bachelor of Arts must meet the following requirements.

1.**Hours Required for the Degree**: Completion of a minimum of 120 total semester hours; 36 must be advanced.

2.**General University Requirements**: See "Degree Requirements" in the Degree and Program Requirements section of this catalog.

3.**College of Science Degree Requirements**: See "Bachelor of Arts Breadth Requirement" in this section of the catalog for specific requirements and list of approved courses. See specific degree audit for exact hours.

4.**Major Requirements**: A major as specified by the department with at least 24 semester hours; 12 hours of advanced work in the major must be completed at UNT.

5.**Minor:** See individual major.

6.**Electives**: See individual major.

7.**Other Course Requirements**: See individual major.

8.**Other Requirements**: Completion of all other requirements for a major and a minor as specified by the respective departments.

Bachelor of Science degree requirements

Candidates for the Bachelor of Science must meet the following requirements.

1.**Hours Required for the Degree**: Completion of a minimum of 120 total semester hours; 36 must be advanced.

2.**General University Requirements**: See "Degree Requirements" in the Degree and Program Requirements section of this catalog.

3.**Major Requirements**: A major as specified by the department with at least 24 semester hours; 12 hours of advanced work in the major must be completed at UNT.

4.**Minor:** See individual major.

5.**Electives:** See individual major.

6.**Other Course Requirements**: See individual major.

7.**Other Requirements**: Completion of all other requirements for a major and a minor as specified by the respective departments.

Core curriculum

Candidates for the Bachelor of Arts and Bachelor of Science degrees in the College of Science must complete the University Core Curriculum and the College of Science degree requirements shown below. Students should see the departmental advisor for their major for more information.

Bachelor of Arts Breadth Requirement, 3–12 hours (or foreign language proficiency)

Students pursuing the Bachelor of Arts must complete four classes (minimum 3 hours each) from classes outside of COS; these classes may not be simultaneously applied to University Core Curriculum requirements. Students are encouraged to use these 12 hours to add value to their degree by applying them to a certificate, minor, or second major that will support their goals, in consultation with the COS Advising Center.

This requirement will be deemed complete for Bachelor of Arts students who attain Intermediate II (2050) level proficiency in a foreign language (for all languages other than American Sign Language, prerequisites for 2050 are 1010, 1020, and 2040, in sequence). Also, students who graduated from a high school outside the United States at which English was not the primary language should ask the COS Advising Center about eligibility for waiving this requirement.

The Bachelor of Science degree offers candidates the opportunity for greater depth in their field of study, while the Bachelor of Arts degree gives candidates a greater opportunity to take classes from a wider range of classes from across the university. Candidates should see consult their individual majors for specific requirements for the Bachelor of Science.

Undergraduate Academic Certificates

Computational Science certificate

The computational science certificate provides students with a broad knowledge base in problem solving using contemporary computational methods and tools, as well as specialized experience in modeling and solving complex problems in a particular focus area. Computational and data-intensive methods have become an essential aspect of all scientific disciplines. This certificate provides students with competitive skills whether they intend to pursue graduate education or a career in industry.

Requirements, 15 hours

To complete the certificate, students must take the indicated number of approved courses within each of the competency areas. Students should consult with an advisor in their major field of study to choose courses most useful for their discipline and career goals. Students should also check with an advisor about prerequisites needed for the courses in the certificate.

Option 1: Mathematics and Statistics

Focus area fundamentals, 3 hours

3 hours selected from the following:

- ADTA 4130 - Data Analytics and Computational Statistics 1
- MATH 3410 - Differential Equations I
- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics

Programming fundamentals, 3 hours

3 hours selected from the following:

- ADTA 4250 - Principles of Data Visualization for Large Data
- GEOG 4560 - Introduction to Python Programming

Advanced computational methods, 3 hours

3 hours selected from the following:

- ADTA 4230 - Data Analytics and Computational Statistics 2
- ADTA 4240 - Principles of Data Structures, Harvesting and Wrangling
- MATH 3350 - Introduction to Numerical Analysis
- MATH 3420 - Differential Equations II
- MATH 4100 - Fourier Analysis

Computational applications, 6 hours

6 hours selected from the following:

- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4250 - Topics in Game Development
- CSCE 4810 - Bioinformatics Algorithms
- CSCE 4820 - Advances in Bioinformatics
- ADTA 4340 - Methods for Discovery and Learning from Data

- MATH 3850 - Mathematical Modeling
- STAT 4650 - Statistics
- MATH 4810 - Bioinformatics Algorithms

Option 2: Physics

Focus area fundamentals, 3 hours

- PHYS 3310 - Mathematical Methods in the Physical Sciences

Programming fundamentals, 3 hours

- PHYS 3510 - Physics, Computation and Software Applications

Advanced computational methods, 3 hours

- PHYS 3910 - Intermediate Computational Modeling of Physical Systems

Computational applications, 6 hours

6 hours selected from the following:

- CHEM 4660 - Introduction to Computational Chemistry
- ADTA 4340 - Methods for Discovery and Learning from Data
- PHYS 4600 - Computer Based Physics

Option 3: Chemistry

Focus area fundamentals, 3 hours

- CHEM 3510 - Physical Chemistry I

Programming fundamentals, 3 hours

- PHYS 3510 - Physics, Computation and Software Applications

Advanced computational methods, 3 hours

- PHYS 3910 - Intermediate Computational Modeling of Physical Systems

Computational applications, 6 hours

- CHEM 4660 - Introduction to Computational Chemistry
- PHYS 4600 - Computer Based Physics

Option 4: Biology

Focus area fundamentals, 3 hours

3 hours selected from the following

- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOL 4570 - Biochemistry and Molecular Biology of the Gene

Programming fundamentals, 3 hours

3 hours selected from the following:

- CSCE 3410 - Advanced Programming
- GEOG 4560 - Introduction to Python Programming

Advanced computational methods, 3 hours

- BIOL 4005 - Contemporary Topics in Biology

Computational applications, 6 hours

- BIOL 4810 - Bioinformatics Algorithms
- BIOL 4820 - Advances in Bioinformatics

Preprofessional studies

Office of Health Professions
Hickory Hall, Room 256

Mailing address:
1155 Union Circle #311365
University of North Texas
Denton, TX 76203-5017
940-369-7500
Website: cos.unt.edu/advising/health-professions

For information on all health professions at UNT: https://healthcareers.unt.edu/

Todd Lang, Assistant Dean of Health Professions

Faculty

The Office of Health Professions assists all UNT students preparing for admission to a graduate program in a health profession. Staff in the Office of Health Professions advise students in medicine, dentistry, veterinary medicine, optometry, physician assistant, physical therapy, occupational therapy, pharmacy, chiropractic and other health professions. The progress of each student is tracked by professionals who provide one-on-one advising, information on entrance requirements, the application process, and letters of recommendation.

The goal of the Office of Health Professions is to help students prepare for admission to a professional school through advising, seminars, and workshops. Each semester, students should meet with an advisor in the Office of Health Professions, as well as with their major academic advisor, to review their goals for graduation and applying to health professional schools.

For further information and to schedule a prospective student appointment, please e-mail healthcareers@unt.edu. Current students can schedule an appointment by visiting https://unt.navigate.eab.com/.

Health Professions Scholarships and Special Programs

Joint Admission Medical Program (JAMP)
The Joint Admission Medical Program was created by Senate Bill 940 of the 77th Texas Legislature in 2001 to provide services to support and encourage highly qualified, economically disadvantaged students pursuing a medical education. For students who satisfy both academic and non-academic requirements within the program, JAMP provides guaranteed admission to a participating Texas medical program. The program also awards undergraduate and medical school scholarships to qualified students.

Upon acceptance into the JAMP, scholarship money will be awarded each fall and spring semesters beginning in the spring semester of the student's sophomore year of college. Additional funds will be awarded during the summer internships at the Texas medical schools. At UNT, the JAMP Faculty Director serves as a mentor for each JAMP student.

Eligibility criteria include:

- must be socioeconomically disadvantaged, as defined by JAMP;
- must have completed 27 hours of college credit in the year prior to applying for admission;
- must have graduated high school the summer prior as an Early Decision applicant or two summers prior as a Regular Decision applicant;
- must have completed CHEM 1410/1430 (General Chemistry I plus the lab) and CHEM 1420/1440 (General Chemistry II plus the lab) with a C or better before applying; and
- must maintain a 3.40 GPA or higher overall GPA and a 3.25 math/science GPA or higher.

The JAMP scholarship is for premedical students only. For additional information, please visit the state JAMP website: www.TexasJamp.org or contact the UNT JAMP Faculty Director, Todd Lang, in Hickory Hall Room 256 (Todd.Lang@unt.edu). The deadline to apply to JAMP is usually in late September or early October every cycle.

The Glenn Mitchell Memorial Scholarship
To qualify, the recipient must be a pre-medical student, should have completed 60 hours of pre-medical coursework, must demonstrate academic excellence, must be competitive for admission to a medical school, and have 1 year of Biology, Physics, and Organic Chemistry credit.

The Rafes Scholarship Fund
To qualify, the recipient must be a full-time UNT pre-medical student, should currently be enrolled as a freshman, demonstrate scholastic excellence, rank in the top quarter of their high school graduating class, have a minimum score on the SAT of 1000 or 25 on the ACT, and maintain enrollment in 15 credit hours during the awarding year.

The Dr. Leslie Parks Memorial Scholarship
To qualify, the recipient must be a full-time pre-health student and should have completed 60 hours of college coursework.

Dr. Charles H. and Mabel P. Saunders Pre-Dental Scholarship
To qualify, the recipient must be a pre-dental student, a junior or senior, and demonstrate academic excellence.

The Dr. Charles D. and Vernil Mitchell Endowed Scholarship
To qualify, the recipient must be a full-time student completing a major in the College of Science and be a graduate of any high school in Dallas ISD. Preference will be given to pre-health students.

Dr. Burl Gordon Rogers Academic Excellence Award
To qualify, the recipient must have graduated from UNT with a major in Chemistry, be admitted to and registered with an accredited medical school, and be the highest-ranking student academically from the pool of applicants.

UNT/TCOM 3+4 Pathway Program
The UNT/TCOM 3+4 Pathway Program is an accelerated program which allows qualified students to earn a Bachelor of Arts in Biology degree from UNT while attending their first year of medical school at the UNT Health Science Center Texas College of Osteopathic Medicine; the MCAT is not required. Three years of designated work must be completed at UNT, an application to TCOM must be completed, and, upon receiving an interview at TCOM, the student may be accepted into the medical school early. An interview or admission to TCOM is not guaranteed.

For more information on this program, please visit a UNT Health Professions advisor or visit healthcareers.unt.edu/specialprograms/index.

UNT-UNTHSC College of Pharmacy Reverse Articulation Agreement
UNT and UNTHSC have partnered to award students a Bachelor of Arts in Biology using coursework successfully completed in the first year of pharmacy college. Some of the benefits of this agreement include reduced costs associated with earning a bachelor's degree, better preparation for a rigorous pharmacy curriculum, and eligibility for dual degree programs at the pharmacy college.

For more information on this program, please visit a UNT Health Professions advisor or visit healthcareers.unt.edu/specialprograms/index.

UNT Health Professions Advisory Committee (HPAC)
The Office of Health Professions offers the Health Professions Advisory Committee (HPAC) program to provide eligible students with a committee letter of evaluation for their professional school application. A committee letter is a holistic, objective, and comprehensive evaluation of a student's candidacy for admission to dental, medical, optometry, and podiatry schools. Several of these programs prefer, and sometimes require, a committee letter as part of their application process. To review more information about UNT's HPAC, please visit healthcareers.unt.edu/getadvised/index.

Teach North Texas

Main Departmental Office
Curry Hall, Suite 309

Mailing address:
1155 Union Circle #305028
Denton, TX 76203-5017
940-565-2265
Fax: 940-565-3546
Web site: www.teachnorthtexas.unt.edu

Vacant, Co-Director
Ruthanne Thompson, Co-Director

Faculty

UNT is authorized to recommend secondary and all-level teacher certification for students who have completed a baccalaureate degree in biology, chemistry, biochemistry, computer technology, information technology, mathematics or physics.

Although teacher certification programs share many commonalities, each certificate has unique requirements. What applies to one certificate is not necessarily applicable to another. Also, additions, deletions and revisions to existing teacher standards, content areas and certificate levels continue to be made by the State Board for Educator Certification. Many certificates previously available have been or are scheduled to be replaced or deleted. Although overlap provisions exist for some certificates, they are not broadly applicable to all content areas. Special conditions apply to students pursuing certification who already are licensed to teach in Texas and to teachers seeking transfer of their certification from another state or country. Therefore, it is impractical to list requirements for individual content areas in this catalog.

The student is responsible for initiating the degree/certification plan process and should do so as soon as possible after being formally accepted to the university. Advising should be sought in the Teach North Texas Office.

Teacher certification and endorsements

Teacher certification is a function of the State Board for Educator Certification. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by the agency. To receive recommendation for teacher certification through the University of North Texas, the student must have:

- successfully completed the Mathematics and Science Secondary Teaching minor requirements;
- successfully completed Clinical Teaching, including attendance at appropriate seminars and passing a comprehensive teacher preparation examination; and
- passed appropriate sections of the Texas Examinations of Educator Standards (TExES), as applicable. Additional certifications may require satisfactory scores on portions related to those areas.

Access to Texas teacher licensure testing (TExES bar codes) is available only to those students who have successfully completed an initial teacher certification program or who are passing their final education courses and have passed the departmental competency exams. Some content areas also require that the competency exam be passed as part of the requirements for a passing grade in specific courses. (Students should consult the Courses of Instruction section of this catalog for identification of those courses.)

The TExES is offered at least once each long term/semester and once in the summer. Contact the TExES Success Office in Matthews Hall, Room 119 for further information (940-369-8601).

Minors

Mathematics and Science Secondary Teaching minor

See the Teach North Texas page for more information regarding this minor.

The minor requires 22 hours:

Requirements

- EDCI 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDCI 4000 - Classroom Interactions
- EDCI 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science and
- EDCI 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science
- EDCI 4060 - Content Area Reading
- EDCI 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDCI 4628 - Apprentice Teaching Seminar in Science, Math and Computer Science
- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design

Note

1. Enrollment in TNTX 1100 and TNTX 1200 is open to all students after consultation with and consent of the Teach North Texas advisor.

2. For eligible students, TNTX 1300 may be substituted for both TNTX 1100 and TNTX 1200.

3. Students who fail to complete EDCI 4608, EDCI 4618 and/or EDCI 4628 may petition the Teach North Texas program advisor for substitutions for these classes. Students who elect this option may not apply the minor to either the Mathematics, BA (teacher certification) or the Mathematics, BSMTH (teacher certification). Students who elect this option will not be recommended for state licensure by UNT and should consult a College of Sciences academic advisor for additional information regarding degree completion.

4. Certification requirements are subject to change by the State Board for Education Certification. A recommendation for certification must meet the current requirements as set forth by the Texas State Board for Educator Certification advisor.

5. TNT candidates must meet requirements (published elsewhere) for overall GPA, GPA for all UNT courses, GPA for all content courses, and (if applicable) any GPA requirement set forth by an individual department. Students who fail to meet any of these requirements are permitted to petition the Admission, Retention and Review Committee of the Department of Teacher Education and Administration.

Other requirements

1. Admission to Teacher Education and Administration at the University of North Texas.
2. Meet and continue to meet the TNT program requirements which are subject to change based on changes to the Texas laws related to teacher certification.
3. Pass a criminal background check.
4. A minimum GPA of 2.75 for all courses in the minor.

Department of Biological Sciences

Main Departmental Office
Life Sciences, Room A210

Mailing address:
1155 Union Circle #305220
Denton, TX 76203-5017
940-565-3591
Email: biology@unt.edu
Web site: www.biology.unt.edu

Undergraduate Advising Office
Life Sciences Building, Room A128
940-565-3627
Fax: 940-565-3821

Jyoti Shah, Chair

Faculty

Modern biology encompasses the study of all aspects of living systems from the molecular basis of genetic inheritance to the interactions between organisms and the environment. The mission of the Department of Biological Sciences is to provide quality education leading to bachelor's, master's and doctoral degrees in biology, environmental biology, biochemistry and medical laboratory sciences. A vital component of that mission is scholarly activity, and faculty in the department conduct relevant basic and applied research and provide professional expertise and service to local, state and national constituencies. Central to our mission is quality teaching, and faculty engage in instructional development to enhance their abilities to train professionals who will have the most up-to-date skills and professional ethics for meeting the demands of a technological society. Our success is measured by the success of our students and the quality of our intellectual contributions to the improvement of society.

Preprofessional programs

See "Preprofessional studies" in the College of Sciences section of this catalog.

Advanced courses

The use of the term "advanced" as applied to courses means any upper-division (3000- or 4000-level) course.

Mathematics and Science Secondary Teaching

Individuals interested in pursuing certification in math or science teaching at the secondary level may wish to pursue a minor through the Teach North Texas program. See "Teach North Texas" in the College of Sciences section of this catalog.

Majors

Biochemistry with a concentration in Forensic Science, BSBC

The Bachelor of Science in Biochemistry with a concentration in Forensic Science provides hands-on training for a career in forensic sciences with a focus on biochemistry. This program is accredited by the Forensic Science Education Programs Accreditation Commission.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in Biochemistry with a concentration in Forensic Science. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements. Students must be accepted into the Forensic Science program and see the Program Director for their official degree plan.

Hours required and general/college requirements

A minimum of 125 semester hours and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation courses requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I

- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or
- CHEM 1423 - Honors General Chemistry II

- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1680 - Elementary Probability and Statistics

  or

- MATH 3370 - Probability Models

Chemistry requirements

In addition to the foundation requirements, students must complete the following biochemistry and chemistry courses with a C or higher.

- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry I
- CHEM 3520 - Physical Chemistry II

Other course requirements

These requirements include course sequence options in math and physics (take all courses in math options 1 or 2 and physics options 1 or 2).

Math Option 1

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

Math Option 2

- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

Physics Option 1

- PHYS 1510 - General Physics I with Calculus
- PHYS 1520 - General Physics II with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1540 - General Physics with Calculus Laboratory II

Physics Option 2

- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

Biology minor requirements

Students must complete a minor of 20 hours in biology, which includes the biology foundation courses, BIOL 4240/BIOL 4900 in the forensic science coursework, and the following:

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

Forensic science requirements

The following Forensic Science courses are required with a C or higher. Students are also required to complete the FSAT exam.

- BIOL 3331 - Biomedical Criminalistics
- BIOL 4240 - Forensic Microscopy
- BIOL 4590 - Forensic Molecular Biology Laboratory
- BIOL 4900 - Special Problems (Forensic Science Internship as approved by Forensic Science Program Director)
- CHEM 3330 - Forensic Science Analysis
- CHEM 4351 - Forensic Chemistry
- CHEM 4360 - Principles of Forensic Science
- CHEM 4631 - Instrumental Analysis
- CHEM 4632 - Instrumental Analysis Laboratory

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation Courses, C or better in all upper-division courses counting towards major requirements, minimum 2.75 grade point average in math and science courses, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Biochemistry, BA

The Bachelor of Arts with a major in biochemistry prepares you with a strong foundation in biochemistry and molecular biology for careers ranging from industry to teaching.

The Bachelor of Arts with a major in biochemistry allows a less structured curriculum with more elective options than does the Bachelor of Science in Biochemistry. Further, it serves as an excellent degree program for those who wish to teach sciences at the high school level in the areas of biochemistry, chemistry, and biology. Additionally, the program serves well those who wish to go into medicine, dentistry or other biologically related professional programs of study.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in biochemistry. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or

- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

  or
- BIOL 2041 - Microbiology

- BIOL 2042 - Microbiology Laboratory

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I

- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or
- CHEM 1423 - Honors General Chemistry II

- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1650 - Pre-Calculus

Chemistry requirements

Students must complete at least 33 hours in biochemistry, of which 19 must be advanced. In addition to the chemistry foundation courses, required biochemistry courses include:

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

  or
- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory

- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory

Other course requirements

Required courses in math and physics:

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Biology requirements

Students must complete a minor of 20 hours in biology, which includes the biology foundation courses and at least 12 hours as follows:

- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

  Plus at least 8 hours of advanced biology courses (lectures with associated labs) selected from the following list:
- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3150 - Conservation Biology Laboratory
- BIOL 3160 - Conservation Biology
- BIOL 3381 - Medical Bacteriology
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3800 - Human Physiology
- BIOL 4000 - Plant Ecology
- BIOL 4030 - Physiological Ecology
- BIOL 4050 - Animal Ecology
- BIOL 4051 - Community Ecology
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4055 - Ornithology
- BIOL 4056 - Ornithology Laboratory
- BIOL 4057 - Mammalian Ecology and Evolution
- BIOL 4070 - Insect Biology
- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4091 - Parasitology
- BIOL 4092 - Parasitology Laboratory
- BIOL 4201 - Immunology
- BIOL 4202 - Immunology Laboratory
- BIOL 4260 - Principles of Evolution
- BIOL 4261 - Principles of Evolution Laboratory
- BIOL 4300 - Histology
- BIOL 4400 - Wetland Ecology and Management

- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4530 - Virology
- BIOL 4540 - Virology Laboratory
- BIOL 4560 - Aquatic Insects of North America
- BIOL 4650 - Environmental Science Field Course
- BIOL 4751 - Neuroscience I: Cells and Circuits
- BIOL 4760 - Neurobiology Laboratory

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation Courses, C or better in all biology, biochemistry and chemistry courses, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
MATH 1650 - Pre-Calculus	5 hours	ENGL 1310 - First-Year Writing I	3 hours
Biochemistry First Sem BIOL	3 hours	MATH 1710 - Calculus I	4 hours
Biochemistry First Sem BIOL Lab	2 hours	Biochemistry Second Sem BIOL	3 hours
First Semester Chemistry*	3 hours	Second Semester Chemistry*	3 hours
Total	14 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
PHYS 1510 - General Physics I with Calculus	3 hours	PHYS 1520 - General Physics II with Calculus	3 hours
PHYS 1530 - General Physics with Calculus Laboratory I	1 hour	PHYS 1540 - General Physics with Calculus Laboratory II	1 hour
Communication core	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Language, Philosophy and Culture core	3 hours
		COS Breadth Requirement	3 hours
Total	14 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
BIOC 3621 - Principles of Biochemistry	3 hours	BIOC 4550 - Biochemistry II OR Elective-advanced	3 hours
BIOC 3622 - Principles of Biochemistry Laboratory	1 hour	BIOC 4570 - Biochemistry and Molecular Biology of the Gene	3 hours
BIOL 3510 - Cell Biology	3 hours	BIOC 4580 - Molecular Biology and Biotechnology Laboratory	2 hours
BIOL 3520 - Cell Biology Laboratory	1 hour	CHEM 3530 - Physical Chemistry for Life Science	4 hours
CHEM 3451 - Quantitative Analysis	3 hours	American History core	3 hours
CHEM 3452 - Quantitative Analysis Laboratory	1 hour		
American History core	3 hours		
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Creative Arts core	3 hours	COS Breadth Requirement	3 hours
Social and Behavioral Sciences core	3 hours	COS Breadth Requirement	3 hours
COS Breadth Requirement	3 hours	Advanced Biology Lecture and Lab elective**	4 hours
Advanced Biology Lecture and Lab elective**	4 hours	Elective	2 hours
Elective	3 hours	Elective-advanced	3 hours
Total	16 hours	Total	15 hours

Notes:

*See chemistry courses under "Foundation requirements."

**See "Biology requirements" above for requirements.

Biochemistry, BSBC

The Bachelor of Science in Biochemistry provides hands-on training for a research or medical career in biochemistry.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in Biochemistry. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

  or
- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I

- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or
- CHEM 1423 - Honors General Chemistry II

- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1650 - Pre-Calculus

Chemistry requirements

Students must complete at least 39 hours in biochemistry, of which 25 must be advanced. In addition to the chemistry foundation courses, required biochemistry courses include:

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry I
- CHEM 3520 - Physical Chemistry II
- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene

- BIOC 4580 - Molecular Biology and Biotechnology Laboratory

Other course requirements

These requirements include a course sequence option in math and physics (take all courses in math option 1 or 2 and physics option 1 or 2).

Math Option 1

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

Math Option 2

- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

Physics Option 1

- PHYS 1510 - General Physics I with Calculus
- PHYS 1520 - General Physics II with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1540 - General Physics with Calculus Laboratory II

Physics Option 2

- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

Biology requirements

Students must complete a minor of 20 hours in biology, which includes the biology foundation courses and at least 12 hours as follows:

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

  Plus at least 4 hours of advanced biology courses (lecture with associated lab) selected from the following list:

- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3150 - Conservation Biology Laboratory
- BIOL 3160 - Conservation Biology
- BIOL 3381 - Medical Bacteriology
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3800 - Human Physiology
- BIOL 4000 - Plant Ecology
- BIOL 4030 - Physiological Ecology
- BIOL 4050 - Animal Ecology
- BIOL 4051 - Community Ecology
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4055 - Ornithology
- BIOL 4056 - Ornithology Laboratory
- BIOL 4057 - Mammalian Ecology and Evolution
- BIOL 4070 - Insect Biology
- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4091 - Parasitology
- BIOL 4092 - Parasitology Laboratory
- BIOL 4201 - Immunology
- BIOL 4202 - Immunology Laboratory
- BIOL 4260 - Principles of Evolution
- BIOL 4261 - Principles of Evolution Laboratory
- BIOL 4300 - Histology
- BIOL 4400 - Wetland Ecology and Management
- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4530 - Virology
- BIOL 4540 - Virology Laboratory
- BIOL 4560 - Aquatic Insects of North America
- BIOL 4650 - Environmental Science Field Course
- BIOL 4751 - Neuroscience I: Cells and Circuits
- BIOL 4760 - Neurobiology Laboratory

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation Courses, C or better in all biology, biochemistry, and chemistry courses, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
MATH 1650 - Pre-Calculus	5 hours	ENGL 1310 - First-Year Writing I	3 hours
Biochemistry First Sem BIOL	3 hours	MATH 1710 - Calculus I	4 hours
Biochemistry First Sem BIOL Lab	2 hours	Biochemistry Second Sem BIOL	3 hours
First Semester Chemistry*	3 hours	Second Semester Chemistry*	3 hours
Total	14 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
MATH 1720 - Calculus II	3 hours	Government/Political Science core	3 hours
Communication core	3 hours	Language, Philosophy and Culture core	3 hours
Biochemistry First Sem PHYS	3 hours	Biochemistry Second Sem PHYS	3 hours
Biochemistry First Sem PHYS LAB	1 hour	Biochemistry Second Sem PHYS LAB	1 hour
		Elective	3 hours
Total	14 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
BIOC 4540 - Biochemistry I	3 hours	BIOC 4550 - Biochemistry II	3 hours
BIOC 4560 - Biochemistry Laboratory	2 hours	CHEM 3451 - Quantitative Analysis	3 hours
BIOL 3451 - Genetics	3 hours	CHEM 3452 - Quantitative Analysis Laboratory	1 hour
BIOL 3452 - Genetics Laboratory	1 hour	American History core	3 hours
American History core	3 hours	Creative Arts core	3 hours
Elective-advanced	3 hours	Elective	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
CHEM 3510 - Physical Chemistry I	3 hours	CHEM 3520 - Physical Chemistry II	3 hours
BIOL 3510 - Cell Biology	3 hours	BIOC 4570 - Biochemistry and Molecular Biology of the Gene	3 hours
BIOL 3520 - Cell Biology Laboratory	1 hour	BIOC 4580 - Molecular Biology and Biotechnology Laboratory	2 hours
Government/Political Science core	3 hours	Advanced Biology Lecture and Lab elective**	4 hours
Social and Behavioral Sciences core	3 hours	Elective	3 hours
Elective	2 hours		
Total	15 hours	Total	15 hours

Notes:

*See chemistry courses under "Foundation requirements."

**See "Biology requirements" above for requirements.

Biology with a concentration in Forensic Science, BSBIO

The Bachelor of Science in Biology with a concentration in Forensic Science provides hands-on training for a career in forensic sciences with a focus on biology. This program is accredited by the Forensic Science Education Programs Accreditation Commission.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science in Biology with a concentration in Forensic Science. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements. Students must be accepted into the Forensic Science program and see the Program Director for their official degree plan.

Hours required and general/college requirements

A minimum of 120 semester hours and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 2041 - Microbiology and
- BIOL 2042 - Microbiology Laboratory

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I

- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or
- CHEM 1423 - Honors General Chemistry II

- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1680 - Elementary Probability and Statistics

  or
- MATH 3370 - Probability Models

Biology requirements

In addition to the biology foundation courses, students must complete the following biology courses with a C or higher. Additional biology courses included in the forensic science requirements (BIOL 3331/ BIOL 4240/BIOL 4590/BIOL 4900) must also be completed with a C or higher.

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory
- BIOL 3800 - Human Physiology
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

Other course requirements

These requirements include courses in physics and math.

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1410 - General Physics I
- PHYS 1430 - General Physics Laboratory I

  or
- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1420 - General Physics II
- PHYS 1440 - General Physics Laboratory II

  or
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Chemistry requirements

Students must complete a minor in chemistry with a minimum of 20 hours. This includes the 12 hours of chemistry foundation courses plus 8 hours completed with a grade of C or higher, as follows:

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory

Forensic Science requirements

The following Forensic Science courses are required with a C or higher. Students are also required to complete the FSAT exam.

- BIOL 3331 - Biomedical Criminalistics
- BIOL 4240 - Forensic Microscopy
- BIOL 4590 - Forensic Molecular Biology Laboratory
- BIOL 4900 - Special Problems Forensic Science Internship as approved by Forensic Science Program Director
- CHEM 3330 - Forensic Science Analysis
- CHEM 4351 - Forensic Chemistry
- CHEM 4360 - Principles of Forensic Science
- CHEM 4631 - Instrumental Analysis
- CHEM 4632 - Instrumental Analysis Laboratory

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation courses, C or better in all upper-division courses counting towards major requirements, minimum 2.75 grade point average in math and science courses, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Biology, BA

Earning a Bachelor of Arts with a major in biology develops your knowledge of biology from molecules to organisms in support of careers in industry, teaching, or medicine.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in biology. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II
- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

One of the following courses (with lab, if indicated):

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory

  or
- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

  or
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or

- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1650 - Pre-Calculus

  or

- MATH 1680 - Elementary Probability and Statistics

  If MATH 1680 was used to complete the Foundation Course requirements, it also satisfies the below requirements.

Biology requirements

In addition to the biology foundation courses, students must complete with a C or higher a second 2000 level biology course option, the advanced biology requirements, one physiology course with laboratory, and 7 additional advanced biology elective hours (each course must be a minimum of 3 hours, except for labs taken with the associated lecture course).

Options for the second 2000 level course requirement (with lab, if indicated):

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory

  or

- BIOL 2140 - Principles of Ecology

  or

- BIOL 2241 - Biology of Higher Plants

  or

- BIOL 2251 - Biodiversity and Conservation of Animals

  or

- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

Advanced biology requirements:

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

Physiology requirement options (with lab):

- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory

  or

- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory

  or

- BIOL 4510 - Animal Physiology Laboratory

  with either

- BIOL 3800 - Human Physiology

  or

- BIOL 4505 - Comparative Animal Physiology

Advanced biology electives

Select from this list, except that courses used to fulfill other requirements cannot also count towards advanced electives.

- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3030 - Careers in the Life Sciences
- BIOL 3080 - Physiological Bases of Exercise and Sport
- BIOL 3150 - Conservation Biology Laboratory
- BIOL 3160 - Conservation Biology
- BIOL 3170 - Plants and Human Society
- BIOL 3331 - Biomedical Criminalistics
- BIOL 3381 - Medical Bacteriology
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3770 - Biotechnology
- BIOL 3800 - Human Physiology
- BIOL 3850 - Introduction to Computational Life Science
- BIOL 3900 - Advanced Research in Life Sciences
- BIOL 3996 - Honors College Mentored Research Experience
- BIOL 4000 - Plant Ecology
- BIOL 4005 - Contemporary Topics in Biology
- BIOL 4006 - Topics in Forensic Biology
- BIOL 4030 - Physiological Ecology
- BIOL 4045 - Foundations of Ecological Theory
- BIOL 4035 - Behavioral Ecology
- BIOL 4050 - Animal Ecology
- BIOL 4051 - Community Ecology
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation
- BIOL 4054 - Tracing Darwin’s Path
- BIOL 4055 - Ornithology
- BIOL 4056 - Ornithology Laboratory
- BIOL 4057 - Mammalian Ecology and Evolution
- BIOL 4070 - Insect Biology
- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4091 - Parasitology
- BIOL 4092 - Parasitology Laboratory
- BIOL 4100 - Introduction to Environmental Impact Assessment
- BIOL 4110 - Endocrinology
- BIOL 4120 - Environmental Chemistry
- BIOL 4201 - Immunology
- BIOL 4202 - Immunology Laboratory
- BIOL 4220 - Neuropsychopharmacology
- BIOL 4230 - Cardio-respiratory Physiology
- BIOL 4240 - Forensic Microscopy
- BIOL 4250 - Pharmacology: Biological Basis of Drug Action
- BIOL 4260 - Principles of Evolution
- BIOL 4261 - Principles of Evolution Laboratory
- BIOL 4280 - Aquatic Botany
- BIOL 4290 - Marine Biology
- BIOL 4300 - Histology

- BIOL 4320 - Integrative Molecular Physiology Laboratory
- BIOL 4330 - Developmental Biology
- BIOL 4370 - General Toxicology
- BIOL 4375 - Molecular Toxicology
- BIOL 4380 - Fundamentals of Aquatic Toxicology
- BIOL 4400 - Wetland Ecology and Management
- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- BIOL 4460 - Eukaryotic Genetics
- BIOL 4480 - Medical Genetics
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4506 - Biology of Extreme Environments
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4530 - Virology
- BIOL 4540 - Virology Laboratory
- BIOL 4560 - Aquatic Insects of North America
- BIOL 4570 - Biochemistry and Molecular Biology of the Gene
- BIOL 4580 - Molecular Biology and Biotechnology Laboratory
- BIOL 4590 - Forensic Molecular Biology Laboratory
- BIOL 4650 - Environmental Science Field Course
- BIOL 4720 - Sediment Toxicology
- BIOL 4751 - Neuroscience I: Cells and Circuits
- BIOL 4752 - Neuroscience II: Brain and Behavior
- BIOL 4760 - Neurobiology Laboratory
- BIOL 4801 - Microbial Genetics
- BIOL 4810 - Bioinformatics Algorithms
- BIOL 4820 - Advances in Bioinformatics
- BIOL 4850 - Biology Laboratory Instruction

Other course requirements

These requirements include courses in physics and math (lab required with lecture course, if indicated).

- MATH 1680 - Elementary Probability and Statistics or equivalent (with a grade of C or better)

  or

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  or

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

Chemistry requirements

Students must complete a minor in chemistry with a minimum of 20 hours. This includes the 12 hours of chemistry foundation courses plus 8 hours completed with a grade C or higher, as follows:

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II

Plus at least 4 advanced hours chosen from:

- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory

  or

- CHEM 3530 - Physical Chemistry for Life Science

  or

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

  or

- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation Courses, C or better in all upper-division courses counting towards major requirements, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
BIOL 1710 - Biology for Science Majors I	3 hours	BIOL 1720 - Biology for Science Majors II	3 hours
BIOL 1760 - Biology for Science Majors Laboratory	2 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	Communication core	3 hours
ENGL 1310 - First-Year Writing I	3 hours	Creative Arts core	3 hours
Mathematics core	3 hours	Second Semester Chemistry*	3 hours
First Semester Chemistry*	3 hours	Biology Math Elective	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Language, Philosophy and Culture core	3 hours
COS Breadth Requirement	3 hours	COS Breadth Requirement	4 hours
Sophomore Biology**	3 hours	Sophomore Biology**	3 hours
Total	16 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
BIOL 3451 - Genetics	3 hours	BIOL 3510 - Cell Biology	3 hours
BIOL 3452 - Genetics Laboratory	1 hour	BIOL 3520 - Cell Biology Laboratory	1 hour
American History Core	3 hours	American History Core	3 hours
Biology Elective-advanced	3 hours	COS Breadth Requirement	3 hours
Physics Semester 1 (1400/1500)	4 hours	Physics Semester 2 (1400/1500)	4 hours
Total	14 hours	Total	14 hours

Year 4

Semester 1		Semester 2	
BABIO, BSBIO Advanced Chemistry	4 hours	BIOC 4550 - Biochemistry II OR Elective-advanced	3 hours
Physiology for BS BIO,BA BIO	4 hours	COS Breadth Requirement	3 hours
Elective-advanced	3 hours	Advanced Biology for BA	3 hours
Elective-advanced	3 hours	Advanced Biology for BA	3 hours
		Elective-advanced	2 hours
Total	14 hours	Total	14 hours

Notes:

*See chemistry courses under “Foundation requirements.”

**See biology courses under “Foundation requirements.”

Biology, BSBIO

The university's investment in Institutes of Research Excellence, cross-disciplinary research clusters and our participation in the Howard Hughes Medical Institute's Science Education Alliance gives you hands-on experience in complex research as you earn your Bachelor of Science in Biology.

Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in biology. Foundation Course requirements must be successfully completed prior to advancing to upper-division major requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II
- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

One of the following courses (with lab, if indicated):

- BIOL 2041 - Microbiology and
- BIOL 2042 - Microbiology Laboratory

  or
- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors

  or
- CHEM 1422 - General Chemistry II for the Honors College

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1650 - Pre-Calculus

Biology requirements

In addition to the biology foundation courses, students must complete with a C or higher a second 2000 level biology course, the advanced biology requirements, one physiology course with laboratory, and 16 advanced biology elective hours (of which 2 courses must be with laboratory).

Options for the second 2000 level course requirement (with lab, if indicated):

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory

  or
- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

Advanced biology requirements:

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

Physiology requirement options (with lab):

- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory

  or
- BIOL 4503 - Plant Physiology and Development

- BIOL 4504 - Plant Physiology Laboratory

  or

- BIOL 4510 - Animal Physiology Laboratory

  with either

- BIOL 3800 - Human Physiology

  or

- BIOL 4505 - Comparative Animal Physiology

Advanced biology electives:

Select from this list, except that courses used to fulfill other requirements cannot also count towards advanced electives.

- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3030 - Careers in the Life Sciences
- BIOL 3080 - Physiological Bases of Exercise and Sport
- BIOL 3150 - Conservation Biology Laboratory
- BIOL 3160 - Conservation Biology
- BIOL 3170 - Plants and Human Society
- BIOL 3331 - Biomedical Criminalistics
- BIOL 3381 - Medical Bacteriology
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3770 - Biotechnology
- BIOL 3800 - Human Physiology
- BIOL 3850 - Introduction to Computational Life Science
- BIOL 3900 - Advanced Research in Life Sciences
- BIOL 3996 - Honors College Mentored Research Experience
- BIOL 4000 - Plant Ecology
- BIOL 4005 - Contemporary Topics in Biology
- BIOL 4006 - Topics in Forensic Biology
- BIOL 4030 - Physiological Ecology
- BIOL 4035 - Behavioral Ecology
- BIOL 4045 - Foundations of Ecological Theory
- BIOL 4050 - Animal Ecology
- BIOL 4051 - Community Ecology
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation
- BIOL 4054 - Tracing Darwin's Path
- BIOL 4055 - Ornithology
- BIOL 4056 - Ornithology Laboratory
- BIOL 4057 - Mammalian Ecology and Evolution
- BIOL 4070 - Insect Biology
- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4091 - Parasitology
- BIOL 4092 - Parasitology Laboratory
- BIOL 4100 - Introduction to Environmental Impact Assessment
- BIOL 4110 - Endocrinology
- BIOL 4120 - Environmental Chemistry
- BIOL 4160 - Advanced Techniques in Microbiology and Molecular Biology
- BIOL 4170 - Advanced Techniques in Microbiology and Molecular Biology Laboratory
- BIOL 4180 - Techniques in Molecular Biology
- BIOL 4190 - Techniques in Molecular Biology Laboratory
- BIOL 4201 - Immunology
- BIOL 4202 - Immunology Laboratory
- BIOL 4220 - Neuropsychopharmacology
- BIOL 4230 - Cardio-respiratory Physiology
- BIOL 4240 - Forensic Microscopy
- BIOL 4250 - Pharmacology: Biological Basis of Drug Action
- BIOL 4260 - Principles of Evolution
- BIOL 4261 - Principles of Evolution Laboratory
- BIOL 4280 - Aquatic Botany
- BIOL 4290 - Marine Biology
- BIOL 4300 - Histology
- BIOL 4320 - Integrative Molecular Physiology Laboratory
- BIOL 4330 - Developmental Biology
- BIOL 4370 - General Toxicology
- BIOL 4375 - Molecular Toxicology
- BIOL 4380 - Fundamentals of Aquatic Toxicology
- BIOL 4400 - Wetland Ecology and Management
- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- BIOL 4460 - Eukaryotic Genetics
- BIOL 4480 - Medical Genetics
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4506 - Biology of Extreme Environments
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4530 - Virology
- BIOL 4540 - Virology Laboratory
- BIOL 4560 - Aquatic Insects of North America
- BIOL 4570 - Biochemistry and Molecular Biology of the Gene
- BIOL 4590 - Forensic Molecular Biology Laboratory
- BIOL 4650 - Environmental Science Field Course
- BIOL 4720 - Sediment Toxicology
- BIOL 4751 - Neuroscience I: Cells and Circuits
- BIOL 4752 - Neuroscience II: Brain and Behavior
- BIOL 4760 - Neurobiology Laboratory
- BIOL 4800 - Biological Sciences Seminar Series
- BIOL 4801 - Microbial Genetics
- BIOL 4805 - Biological Sciences Capstone Seminar
- BIOL 4810 - Bioinformatics Algorithms
- BIOL 4820 - Advances in Bioinformatics
- BIOL 4580 - Molecular Biology and Biotechnology Laboratory
- BIOL 4900 - Special Problems
- BIOL 4910 - Special Problems
- BIOL 4920 - Cooperative Education in Biological Sciences

- BIOL 4930 - Special Problems
- BIOL 4940 - Honors Research in Biology
- BIOL 4950 - Honors Thesis in Biology
- BIOL 4951 - Honors College Capstone Thesis

Other course requirements

These requirements include courses in physics and math.

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1410 - General Physics I
- PHYS 1430 - General Physics Laboratory I

  or
- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1420 - General Physics II
- PHYS 1440 - General Physics Laboratory II

  or
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Chemistry requirements

Students must complete a minor in chemistry with a minimum of 20 hours. This includes the 12 hours of chemistry foundation courses plus 8 hours completed with a grade of C or higher, as follows:

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II

Plus 4 advanced hours chosen from

- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory

  or
- CHEM 3530 - Physical Chemistry for Life Science

  or
- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

  or
- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation Courses, C or better in all upper-division courses counting towards major requirements, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation Course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
BIOL 1710 - Biology for Science Majors I	3 hours	BIOL 1720 - Biology for Science Majors II	3 hours
BIOL 1760 - Biology for Science Majors Laboratory	2 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	ENGL 1310 - First-Year Writing I	3 hours
MATH 1650 - Pre-Calculus	5 hours	MATH 1710 - Calculus I	4 hours
First Semester Chemistry*	3 hours	Second Semester Chemistry*	3 hours
Total	14 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
Communication core	3 hours	Language, Philosophy and Culture core	3 hours
Sophomore Biology**	3 hours	Sophomore Biology**	3 hours
Physics Semester 1 (1400/1500)	4 hours	Physics Semester 2 (1400/1500)	4 hours
Total	14 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
BIOL 3451 - Genetics	3 hours	BIOC 4550 - Biochemistry II OR Elective-advanced	3 hours
BIOL 3452 - Genetics Laboratory	1 hour	BIOL 3510 - Cell Biology	3 hours
American History core	3 hours	BIOL 3520 - Cell Biology Laboratory	1 hour
Creative Arts core	3 hours	American History core	3 hours
Chemistry-advanced selection	4 hours	Advanced Biology Lecture and Lab elective***	4 hours
Elective	3 hours	Elective	3 hours
Total	17 hours	Total	17 hours

Year 4

Semester 1		Semester 2	
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Social and Behavioral Sciences core	3 hours	Advanced Biology Lecture and Lab elective***	4 hours
Physiology selection	4 hours	Biology Elective-advanced	3 hours
Biology Elective-advanced	3 hours	Biology Elective-advanced	3 hours
Elective-advanced	3 hours	Elective	1 hours
Total	16 hours	Total	14 hours

Notes:

*See chemistry courses under "Foundation course requirements."

**See biology courses under "Foundation course requirements."

***See "Biology requirements" for requirements.

Ecology for Environmental Science, BS

The ecology for environmental science degree program will expose you to a wide range of courses and facilities that focus your understanding from an ecological perspective.

Degree requirements

The Bachelor of Science with a major in ecology for environmental science requires the following:

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The Foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

Biology courses:

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

And one of the following:

- BIOL 2140 - Principles of Ecology

- BIOL 2141 - Ecology Laboratory

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

Chemistry courses:

- CHEM 1410 - General Chemistry I for Science Majors

  or
- CHEM 1412 - General Chemistry I for the Honors College

  or
- CHEM 1413 - Honors General Chemistry I

- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors

  or

- CHEM 1422 - General Chemistry II for the Honors College

  or

- CHEM 1423 - Honors General Chemistry II

- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I

Math courses:

- MATH 1650 - Pre-Calculus

  or

- MATH 1680 - Elementary Probability and Statistics (If MATH 1680 was used to complete the Foundation Course requirements, it also satisfies the below requirements)

Biology requirements

Students must complete with a C or higher the other 2000-level biology course option from the foundation, and required upper-level biology courses list below (courses with labs, if indicated), as well as 12 hours from the list of upper-level biology electives (including at least two courses with labs).

- BIOL 2140 - Principles of Ecology

- BIOL 2141 - Ecology Laboratory

  or

- BIOL 2251 - Biodiversity and Conservation of Animals

Required upper-level biology courses

- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 4051 - Community Ecology
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4260 - Principles of Evolution

- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory

  or

- BIOL 4505 - Comparative Animal Physiology
- BIOL 4510 - Animal Physiology Laboratory

Upper-level biology electives (12 hours, including 2 courses with labs):

- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3150 - Conservation Biology Laboratory
- BIOL 3160 - Conservation Biology
- BIOL 3170 - Plants and Human Society
- BIOL 4000 - Plant Ecology
- BIOL 4030 - Physiological Ecology
- BIOL 4035 - Behavioral Ecology
- BIOL 4045 - Foundations of Ecological Theory
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation
- BIOL 4054 - Tracing Darwin's Path
- BIOL 4055 - Ornithology
- BIOL 4056 - Ornithology Laboratory
- BIOL 4057 - Mammalian Ecology and Evolution
- BIOL 4070 - Insect Biology
- BIOL 4085 - Fish Diversity and Ecology
- BIOL 4091 - Parasitology
- BIOL 4092 - Parasitology Laboratory
- BIOL 4100 - Introduction to Environmental Impact Assessment
- BIOL 4120 - Environmental Chemistry
- BIOL 4261 - Principles of Evolution Laboratory
- BIOL 4280 - Aquatic Botany
- BIOL 4290 - Marine Biology
- BIOL 4370 - General Toxicology
- BIOL 4375 - Molecular Toxicology
- BIOL 4380 - Fundamentals of Aquatic Toxicology
- BIOL 4400 - Wetland Ecology and Management
- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- BIOL 4460 - Eukaryotic Genetics
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
- BIOL 4506 - Biology of Extreme Environments
- BIOL 4560 - Aquatic Insects of North America
- BIOL 4580 - Molecular Biology and Biotechnology Laboratory
- BIOL 4650 - Environmental Science Field Course
- BIOL 4720 - Sediment Toxicology
- BIOL 4800 - Biological Sciences Seminar Series
- BIOL 4805 - Biological Sciences Capstone Seminar
- BIOL 4900 - Special Problems
- BIOL 4940 - Honors Research in Biology
- BIOL 4950 - Honors Thesis in Biology
- BIOL 4951 - Honors College Capstone Thesis

Other course requirements

These requirements include courses in philosophical and applied environmental issues/techniques, and courses in chemistry (with a C or higher), physics and math (lab required with lecture course, if indicated).

- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II

- ECON 4440 - Economics of Natural Resources and Environment
- GEOG 3500 - Introduction to Geographic Information Systems

- MATH 1680 - Elementary Probability and Statistics

  or

- MATH 1710 - Calculus I

  or

- MATH 1810 - Calculus for Science and Engineering I
- PHIL 2500 - Environment and Society
- PHYS 1410 - General Physics I
- PHYS 1430 - General Physics Laboratory I

  or
- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1420 - General Physics II
- PHYS 1440 - General Physics Laboratory II

  or
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology course in the degree. Grade of C or better and minimum 2.5 grade point average in Foundation courses, C or better in all upper-division courses counting towards major requirements, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose Foundation course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
BIOL 1710 - Biology for Science Majors I	3 hours	BIOL 1720 - Biology for Science Majors II	3 hours
CHEM 1410 - General Chemistry I for Science Majors	3 hours	BIOL 1760 - Biology for Science Majors Laboratory	2 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1420 - General Chemistry II for Science Majors	3 hours
ECON 1100 - Principles of Microeconomics	3 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
ENGL 1310 - First-Year Writing I	3 hours	Communication core	3 hours
Elective	3 hours	Math elective for Biology	3 hours
Total	16 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
BIOL 2140 - Principles of Ecology	3 hours	BIOL 2251 - Biodiversity and Conservation of Animals	3 hours
BIOL 2141 - Ecology Laboratory	1 hour	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	Creative Arts core	3 hours
PHIL 2500 - Environment and Society	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Elective	3 hours
Total	14 hours	Total	16 hours

Year 3

Semester 1		Semester 2	
BIOL 3451 - Genetics	3 hours	BIOL 4051 - Community Ecology	3 hours
BIOL 3452 - Genetics Laboratory	1 hour	BIOL 4052 - Community Ecology Laboratory	1 hour
GEOG 3500 - Introduction to Geographic Information Systems	3 hours	BIOL 4260 - Principles of Evolution	3 hours
American History core	3 hours	Physics Semester 2 (1400/1500)	4 hours
Physics Semester 1 (1400/1500)	4 hours	Physiology for Ecology*	4 hours
Total	14 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ECON 4440 - Economics of Natural Resources and Environment	3 hours	American History core	3 hours
Biology Elective for Ecology*	4 hours	Language, Philosophy and Culture core	3 hours
Biology Elective for Ecology*	3 hours	Biology Elective for Ecology*	4 hours
Elective	3 hours	Biology Elective for Ecology*	3 hours
Elective	3 hours	Elective	1 hour
Total	16 hours	Total	14 hours

Notes:

*See “Biology requirements” above for requirements.

Medical Laboratory Sciences, BSMLS

Course work for the Bachelor of Science in medical laboratory sciences teaches you to perform tests on blood, tissue and body fluids to determine proper treatment for illnesses and diseases. These technical skills may be used in operating and repairing laboratory instruments and monitoring quality-control programs.

The Department of Biological Sciences offers a Bachelor of Science in medical laboratory sciences in affiliation with the following schools of clinical laboratory science that are approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS):

- Oklahoma Consortium of Clinical Laboratory Science Affiliates
- Baylor Scott and White, Temple
- Tarleton State University at All Saints Hospital, Fort Worth
- Houston Methodist Hospital, Houston
- United Regional Medical Health Care System (School of Medical Technology), Wichita Falls
- Parkview School of Medical Laboratory Science, Pueblo, CO
- The University of Texas Medical Branch at Galveston (School of Health Professions), Galveston

Students complete a minimum of 88 semester hours at UNT (prior to entering clinical training) and a minimum of 12 months of clinical training (for a minimum of 32 semester hours) at any NAACLS-approved school of medical laboratory science to complete the degree.

Upon graduation, students are eligible to take national examinations given by the American Society of Clinical Pathology Board of Certification (ASCPBOC). The ASCPBOC examination is administered by computer several times a year. Upon passing the registry examination, the student is considered a certified medical laboratory scientist. The awarding of the degree is not contingent upon students’ passing national board examinations.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor’s degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Foundation course requirements

The foundation course requirements listed below must be completed before enrollment in 3000 and 4000 level courses required for the major. Successful completion is based on achieving a C or better in each course and an overall 2.5 grade point average in these courses.

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1750 - Introductory Biology Research Laboratory I

  or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory
- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- MATH 1680 - Elementary Probability and Statistics

Science course requirements

Satisfactory completion of a minimum of 12 months of professional training at an approved medical laboratory sciences school as verified by an official transcript sent to the UNT medical laboratory sciences coordinator. The transcript is evaluated by the director who recommends to the dean of the College of Science and the Registrar that a minimum of 32 hours of credit be granted for the completed professional training. These hours are exempt from the UNT residency requirement.

In addition to the foundation course requirements, the following courses must be completed with a grade of C or better:

Biology courses:

- BIOL 3381 - Medical Bacteriology
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory
- BIOL 4201 - Immunology
- BIOL 4202 - Immunology Laboratory

Choose either the Human Anatomy and Physiology sequence (courses and labs) or Animal Physiology (with lab):

- BIOL 2301 - Human Anatomy and Physiology I
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

  or
- BIOL 3800 - Human Physiology
- BIOL 4510 - Animal Physiology Laboratory

Plus two courses (with labs, if indicated) from:

- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 4091 - Parasitology and
- BIOL 4092 - Parasitology Laboratory
- BIOL 4300 - Histology
- BIOL 4570 - Biochemistry and Molecular Biology of the Gene
- BIOL 3770 - Biotechnology

Chemistry courses:

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

Other course requirements

- BCIS 2610 - Introduction to Computers in Business
- MGMT 3720 - Organizational Behavior

  or
- MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors
- TECM 2700 - Technical Writing (replaces ENGL 1320 in University Core Curriculum)
- Completion of a minimum of 12 months of clinical training (for a minimum of 32 semester hours) at any affiliated NAACLS-approved school of medical laboratory science to complete the degree.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. Grade of C or better and minimum 2.5 grade point average in foundation courses, C or better in all upper-division courses counting towards major requirements, and an overall 2.0 grade point average are required for graduation. All students seeking to enter the Department of Biological Sciences, with the exception of beginning freshmen, must meet the minimum grade point averages given above. Students in the department whose foundation course or overall grade point average drops below the minimum for two consecutive semesters will be removed from the program.

Submit the following forms to the program coordinator:

- Request for Degree Statement
- Financial Aid
- Notice of Acceptance to Clinical Training

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
BIOL 1710 - Biology for Science Majors I	3 hours	BIOL 2041 - Microbiology	3 hours
BIOL 1760 - Biology for Science Majors Laboratory	2 hours	BIOL 2042 - Microbiology Laboratory	1 hour
CHEM 1410 - General Chemistry I for Science Majors	3 hours	CHEM 1420 - General Chemistry II for Science Majors	3 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
ENGL 1310 - First-Year Writing I	3 hours	TECM 2700 - Technical Writing	3 hours
MATH 1680 - Elementary Probability and Statistics	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
BCIS 2610 - Introduction to Computers in Business	3 hours	BIOC 3621 - Principles of Biochemistry	3 hours
CHEM 2370 - Organic Chemistry I	3 hours	BIOC 3622 - Principles of Biochemistry Laboratory	1 hour
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	BIOL 3381 - Medical Bacteriology	3 hours
American History core	3 hours	BIOL 3382 - Medical Bacteriology Laboratory	1 hour
Creative Arts core	3 hours	American History core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Total	16 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
BIOL 3510 - Cell Biology	3 hours	BIOL 4201 - Immunology	3 hours
BIOL 3520 - Cell Biology Laboratory	1 hour	BIOL 4202 - Immunology Laboratory	1 hour
BIOL 3800 - Human Physiology	3 hours	Component Area Option A core	3 hours
BIOL 4510 - Animal Physiology Laboratory	1 hour	Language, Philosophy and Culture core	3 hours
MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors	3 hours	Advanced Biology Lecture and Lab	4 hours
Advanced Biology Lecture and Lab	4 hours		
Total	15 hours	Total	14 hours

Year 4

Semester 1		Semester 2	
Med Lab Science Senior Year	16 hours	Med Lab Science Senior Year	16 hours
Total	16 hours	Total	16 hours

Grad Track Options

Biochemistry, BA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Biochemistry, BA must be completed.

Biochemistry, BA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Biochemistry, BA must be completed.

Biology, BA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Biology, BA must be completed.

Biology, BA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Notes

All remaining courses for the Biology, BA must be completed.

Biological Sciences minor

The minor requires a minimum of 18 hours with at least 6 advanced BIOL hours. Courses in the minor must be at least 3 hours. A grade of C or better is required for a course to count towards the minor.

Satisfactory completion of

- BIOL 1710 - Biology for Science Majors I or
- BIOL 1711 - Honors Biology for Science Majors I

  and
- BIOL 1720 - Biology for Science Majors II or
- BIOL 1722 - Honors Biology for Science Majors II

  and
- BIOL 1750 - Introductory Biology Research Laboratory I or
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

A 2000-level option from the following:

- BIOL 2041 - Microbiology and
- BIOL 2042 - Microbiology Laboratory

  or
- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

  or
- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory

- And at least two upper-level BIOL courses, one of which must include a laboratory.

Notes

- The following courses may not be used toward a minor in biology: BIOL 3030, BIOL 1500, BIOL 4160/BIOL 4170, BIOL 4180/BIOL 4190, BIOL 4800, BIOL 4805, BIOL 4850, BIOL 4900, BIOL 4910, BIOL 4920, BIOL 4940, BIOL 4950 and BIOL 4951.
- Advanced electives in the minor should be selected in consultation with an advisor in the Department of Biological Sciences.
- Students must meet all prerequisites for courses before enrolling, including prerequisites from other departments, such as chemistry.

Chemistry teacher certification (Biochemistry)

The College of Science encourages students to explore teaching at the secondary level as a career option. The advisor in Teach North Texas, in Curry Hall 310F, can assist students with specific requirements for teacher certification.

Teacher certification in chemistry is also available in conjunction with a major in chemistry.

Requirements utilizing the BA with a major in biochemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in chemistry.

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science
- CHEM 4700 - Research Methods for Secondary Science Instruction
- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I
- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Requirements utilizing the BS in biochemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in chemistry.

- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry I
- CHEM 3520 - Physical Chemistry II
- CHEM 4700 - Research Methods for Secondary Science Instruction

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

Additional information

See Biochemistry, BA or Biochemistry, BSBC for additional course work and GPA requirements.

Students must also complete the required 22 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Life Science teacher certification (Biology)

The College of Science encourages students to explore teaching at the secondary level as a career option. The advisor in Teach North Texas, in Curry Hall 310F, can assist students with specific requirements for teacher certification.

Requirements utilizing the BA with a major in biology

Upon completion of this program, students will be prepared to sit for the certification examinations in Life Science.

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory
- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

- BIOL 3800 - Human Physiology (recommended)
- BIOL 4510 - Animal Physiology Laboratory

  or
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory

  or
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory

  or
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4510 - Animal Physiology Laboratory

- BIOL 3160 - Conservation Biology

  or

- BIOL 4070 - Insect Biology

  or
- BIOL 4100 - Introduction to Environmental Impact Assessment

  or
- BIOL 4380 - Fundamentals of Aquatic Toxicology

  or
- BIOL 4440 - Stream Ecology

  or
- BIOL 4650 - Environmental Science Field Course

- BIOL 4700 - Research Methods for Secondary Science Instruction

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Requirements utilizing the BS in biology

Upon completion of this program, students will be prepared to sit for the certification examinations in Life Science.

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

- BIOL 1710 - Biology for Science Majors I

  or
- BIOL 1711 - Honors Biology for Science Majors I

- BIOL 1720 - Biology for Science Majors II

  or
- BIOL 1722 - Honors Biology for Science Majors II

- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1761 - Honors Biology for Science Majors Laboratory

- BIOL 2140 - Principles of Ecology

  or
- BIOL 2241 - Biology of Higher Plants

  or
- BIOL 2251 - Biodiversity and Conservation of Animals

- BIOL 2041 - Microbiology
- BIOL 2042 - Microbiology Laboratory
- BIOL 3451 - Genetics
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology
- BIOL 3520 - Cell Biology Laboratory

- BIOL 3800 - Human Physiology (recommended)
- BIOL 4510 - Animal Physiology Laboratory

  or
- BIOL 4501 - Bacterial Diversity and Physiology
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory

  or
- BIOL 4503 - Plant Physiology and Development
- BIOL 4504 - Plant Physiology Laboratory

  or
- BIOL 4505 - Comparative Animal Physiology
- BIOL 4510 - Animal Physiology Laboratory

- BIOL 3160 - Conservation Biology

  or
- BIOL 4070 - Insect Biology

  or
- BIOL 4100 - Introduction to Environmental Impact Assessment

  or

- BIOL 4380 - Fundamentals of Aquatic Toxicology

  or
- BIOL 4440 - Stream Ecology

  or
- BIOL 4650 - Environmental Science Field Course

- BIOL 4700 - Research Methods for Secondary Science Instruction
- Two advanced biology electives of at least 3 credit hours

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

Additional information

See Biology, BA and Biology, BSBIO for additional course work and GPA requirements.

Students must also complete the required 22 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification course

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Physical Science teacher certification (Biochemistry)

The College of Science encourages students to explore teaching at the secondary level as a career option. The advisor in Teach North Texas, in Curry Hall 310F, can assist students with specific requirements for teacher certification.

Teacher certification in physical science is also available in conjunction with majors in chemistry and physics.

Requirements utilizing the BA with a major in Biochemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- BIOC 3621 - Principles of Biochemistry
- BIOC 3622 - Principles of Biochemistry Laboratory

- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry

- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science
- CHEM 4700 - Research Methods for Secondary Science Instruction

- MATH 1710 - Calculus I

  or
- MATH 1810 - Calculus for Science and Engineering I

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II
- PHYS 3010 - Modern Physics
- PHYS 3030 - Laboratory in Modern Physics

Requirements utilizing the BS in Biochemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory

- BIOC 4570 - Biochemistry and Molecular Biology of the Gene
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory

- CHEM 1410 - General Chemistry I for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry I
- CHEM 3520 - Physical Chemistry II
- CHEM 4700 - Research Methods for Secondary Science Instruction

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

- PHYS 1510 - General Physics I with Calculus
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics
- PHYS 3030 - Laboratory in Modern Physics

Additional information

See Biochemistry, BA or Biochemistry, BSBC for additional course work and GPA requirements.

Students must also complete the required 22 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Department of Chemistry

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LeGrande M. Slaughter, Chair

Faculty

Chemistry, the study of matter and its reactions, provides a basic understanding needed to deal with a variety of societal and scientific needs, including energy, food production, health and medicine, biotechnology, new materials, environmental concerns, new processes, and national defense. Chemistry is a science central to the study of medicine, biology and modern physics.

Current frontiers of experimental and theoretical chemical investigation involve the areas of chemical reactions and reactivity, synthesis, analytical methods, catalysis, materials and life processes.

Preprofessional programs

See "Preprofessional studies" in the College of Science section of this catalog.

Programs of study

All programs are listed below. The department offers a chemistry minor, as well as a series of courses designed to prepare students to sit for the secondary school teacher certification examinations in chemistry or physical sciences.

Recipients of the BS in Chemistry, and in some cases the BA, are certified by the American Chemical Society (ACS) if all requirements for professional training of chemists are met. Courses required for ACS certification may be obtained from the department's Undergraduate Advisors (chem-advising@unt.edu) Mathematics and Science Secondary Teaching.

Mathematics and Science Secondary Teaching

Individuals interested in pursuing certification in math or science teaching at the secondary level may wish to pursue a minor through the Teach North Texas program. See "Teach North Texas" in the College of Science section of this catalog.

Majors

Chemistry with a Concentration in Computational Chemistry, BA

The concentration is designed to prepare BA Chemistry majors for careers in computational chemistry or other areas of chemistry that utilize machine learning and molecular modeling methods, where they can apply their knowledge of chemistry, mathematics, and computer science in the workforce. Graduates of this concentration may pursue teaching and/or research careers in academia, or enter industry and government sectors in areas such as drug discovery, cheminformatics, and process optimization.

This concentration introduces a new option under the "Major Requirements" of the current BA Chemistry curriculum. It includes core computational chemistry courses along with a research or internship component. In addition, students are required to complete four foundational computer science courses, which replace the Option 1 COS Breadth requirement under the College Requirements. A GPA of 2.5 is required on all advanced courses attempted in science and engineering courses (biochemistry, biology, chemistry, computer science, engineering, mathematics, physics).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

29 hours of Chemistry, including:

- CHEM 1400 - First Year Seminar in Chemistry

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II

Computational Chemistry Concentration Requirements

9 hours of Chemistry and 12 hours of Computer Science, including:

- CHEM 4660 - Introduction to Computational Chemistry
- CHEM 4680 - Introduction to Chemical Applications of Machine Learning
- CHEM 4900/ 4910/ 4912/ 4920/ 4951 - Internship/ research
- CSCE 1010 - Discovering Computer Science
- CSCE 1030 - Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2110 - Foundations of Data Structures

Other course requirements

15 to 18 hours of Mathematics and Physics, including:

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or

- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

  or

- MATH 1710 - Calculus I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I
- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Electives

A minimum of 13 hours of advanced electives is needed to meet the university requirement of 36 advanced hours.

Other requirements

GPA of 2.5 on all advanced courses attempted in science and engineering courses (biochemistry, biology, chemistry, computer science, engineering, mathematics, physics).

Chemistry with a concentration in Forensics, BSCHM

The Bachelor of Science in Chemistry qualifies you to be a professional chemist, and the Forensics concentration qualifies you to be a forensic scientist.

The B.S. in Chemistry with the Forensic Science concentration is a FEPAC-accredited degree designed to enable students to begin careers in forensic laboratories.

This degree is only for Chemistry majors that have been accepted into the UNT Forensic Science program.

Degree requirements

Candidates for the Bachelor of Science in Chemistry with a Forensics concentration must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Science degree requirements (excluding foreign language and natural and life sciences). The laboratory science requirement is satisfied only by physical sciences.

Major requirements

45 hours of Chemistry, including:

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1412 - General Chemistry I for the Honors College and

  CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1413 - Honors General Chemistry I and

  CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or

- CHEM 1422 - General Chemistry II for the Honors College and

  CHEM 1440 - Laboratory Sequence for General Chemistry II

  or

- CHEM 1423 - Honors General Chemistry II and

  CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II

- CHEM 4610 - Advanced Inorganic Chemistry and
- CHEM 4620 - Advanced Inorganic Chemistry Laboratory

- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory

Plus 9 additional hours:

- BIOC 4540 - Biochemistry I (to satisfy ACS certification requirements)
- CHEM 4351 - Forensic Chemistry

- CHEM 4900 - Special Problems

  or
- CHEM 4912 - Undergraduate Research Capstone Experience

Note

CHEM 4940 may not be used to meet degree requirements for the chemistry major.

Other course requirements

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 3370 - Probability Models
- MATH 2730 - Multivariable Calculus

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Minor requirements

A biology minor is required. 22 hours of Biology courses. Must be completed with a C or better.

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

  or
- BIOL 1711 - Honors Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

- BIOL 2041 - Microbiology and
- BIOL 2042 - Microbiology Laboratory

- BIOL 3331 - Biomedical Criminalistics

- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory

- BIOL 4240 - Forensic Microscopy
- BIOL 4590 - Forensic Molecular Biology Laboratory

Other requirements

Students must maintain a GPA of 2.75 of better, with a C or better in all forensics science courses and organic chemistry.

Forensic science requirements

FSAT exam required. Some courses apply towards 2 requirements.

- CHEM 3330 - Forensic Science Analysis
- CHEM 4360 - Principles of Forensic Science
- CHEM 4351 - Forensic Chemistry

- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory

- CHEM 4900 - Special Problems

  or
- CHEM 4912 - Undergraduate Research Capstone Experience

- BIOL 3331 - Biomedical Criminalistics
- BIOL 4240 - Forensic Microscopy
- BIOL 4590 - Forensic Molecular Biology Laboratory

Chemistry, BA

The Bachelor of Arts with a major in chemistry prepares students for careers in chemistry-related areas like business, professional health services, environmental studies and pharmacology. You may also get a teaching certification that equips you for teaching in secondary schools.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in chemistry.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor of arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Option 1 required courses

Minimum of 32 hours, including:

- CHEM 1400 - First Year Seminar in Chemistry

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3510 - Physical Chemistry I
- CHEM 3230 - Physical Chemistry Laboratory I
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II
- Plus 3 additional hours of chemistry at the 4000 level (except CHEM 4940)

  or
- BIOC 3621 - Principles of Biochemistry and
- BIOC 3622 - Principles of Biochemistry Laboratory

  This option is recommended for those planning to pursue advanced studies in chemistry.

Option 2 required courses

Minimum of 32 hours, including:

- CHEM 1400 - First Year Seminar in Chemistry

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- Plus 7 additional hours, which may include BIOC 3621/ BIOC 3622 and any 4000-level chemistry course (except CHEM 4940)

Option 3 required courses

Minimum of 32 hours, including:

- CHEM 1400 - First Year Seminar in Chemistry
- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or

- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or

- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I
- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science
- Plus 7 additional hours, which may include BIOC 3621/ BIOC 3622 and any 4000-level chemistry course (except CHEM 4940)

Other course requirements

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or

- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism (required of all students who expect to take further course work in physics)

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (36) and/ or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

GPA of 2.5 on all advanced courses attempted in science and engineering courses (biochemistry, biology, chemistry, computer science, engineering, mathematics, physics).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1400 - First Year Seminar in Chemistry	1 hour	CHEM 1420 - General Chemistry II for Science Majors	3 hours
CHEM 1410 - General Chemistry I for Science Majors	3 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	MATH 1720 - Calculus II	3 hours
ENGL 1310 - First-Year Writing I	3 hours	Second semester ENGL or TECM	3 hours
MATH 1710 - Calculus I	4 hours	Elective	3 hours
College of Science Breadth Requirement	3 hours		
Total	15 hours	Total	13 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
American History core	3 hours	American History core	3 hours
Language, Philosophy and Culture core	3 hours	Creative Arts core	3 hours
Physics Semester 1 (1400/1500/1700)	4 hours	Physics Semester 2 (1400/1500/1700)	4 hours
Elective	2 hours	Elective	3 hours
Total	16 hours	Total	17 hours

Year 3

Semester 1		Semester 2	
CHEM 3451 - Quantitative Analysis	3 hours	Government/Political Science core	3 hours
CHEM 3452 - Quantitative Analysis Laboratory	1 hour	Physical Chemistry for BA Semester 2	4 hours
Government/Political Science core	3 hours	Elective	2 hours
Social and Behavioral Sciences core	3 hours	Elective - advanced	3 hours
Physical Chemistry for BA Semester 1	4 hours	Elective - advanced	3 hours
Total	14 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
4000-level Chemistry/Biochemistry Elective for BA	3 hours	College of Science Breadth Requirement	3 hours
College of Science Breadth Requirement	3 hours	Elective	3 hours
Elective	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Chemistry, BSCHM

The Bachelor of Science in Chemistry qualifies you to be a professional chemist or to earn a certificate in forensic science. The UNT forensic science program is one of only two undergraduate programs in Texas and one of only 38 programs nationwide.

The BSCHM is a good choice for students planning to pursue graduate study in chemistry.

Degree requirements

Candidates for the Bachelor of Science in Chemistry must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor's degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements (excluding foreign language and natural and life sciences). The laboratory science requirement is satisfied only by physical sciences.

Major requirements

Minimum of 43 hours, including:

- CHEM 1400 - First Year Seminar in Chemistry
- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II

- CHEM 4610 - Advanced Inorganic Chemistry and
- CHEM 4620 - Advanced Inorganic Chemistry Laboratory

- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory

- Plus 6 additional hours at the 4000 level or above (BIOC 4540 to satisfy ACS certification requirements).

Note

CHEM 4940 may not be used to meet degree requirements for the chemistry major.

Other course requirements

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Minor requirements

A minor of at least 18 hours in mathematics, computer science, physics, biology, geology (if taken as a laboratory science) or materials science, of which 6 must be advanced.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (36) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Science.

Other requirements

GPA of 2.5 on all advanced courses attempted in science and engineering (biochemistry, biology, chemistry, computer science, engineering, mathematics, physics).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1400 - First Year Seminar in Chemistry	1 hour	CHEM 1420 - General Chemistry II for Science Majors	3 hours
CHEM 1410 - General Chemistry I for Science Majors	3 hours	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	MATH 1720 - Calculus II	3 hours
ENGL 1310 - First-Year Writing I	3 hours	TECM 2700 - Technical Writing	3 hours
MATH 1710 - Calculus I	4 hours	Social and Behavioral Sciences core	3 hours
Creative Arts core	3 hours	Minor for BSCHM	3 hours
Total	15 hours	Total	16 hours

Year 2

Semester 1		Semester 2	
CHEM 2370 - Organic Chemistry I	3 hours	CHEM 2380 - Organic Chemistry II	3 hours
CHEM 3210 - Organic Chemistry Laboratory I	1 hour	CHEM 3220 - Organic Chemistry Laboratory II	1 hour
MATH 2730 - Multivariable Calculus	3 hours	PHYS 1520 - General Physics II with Calculus	3 hours
PHYS 1510 - General Physics I with Calculus	3 hours	PHYS 1540 - General Physics with Calculus Laboratory II	1 hour
PHYS 1530 - General Physics with Calculus Laboratory I	1 hour	American History core	3 hours
American History core	3 hours	Government/Political Science core	3 hours
Minor for BSCHM	3 hours		
Total	17 hours	Total	14 hours

Year 3

Semester 1		Semester 2	
CHEM 3451 - Quantitative Analysis	3 hours	CHEM 3240 - Physical Chemistry Laboratory II	1 hour
CHEM 3452 - Quantitative Analysis Laboratory	1 hour	CHEM 3520 - Physical Chemistry II	3 hours
CHEM 3510 - Physical Chemistry I	3 hours	Government/Political Science core	3 hours
CHEM 3230 - Physical Chemistry Laboratory I	1 hour	Language, Philosophy and Culture core	3 hours
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	Minor for BSCHM	3 hours
Minor for BSCHM	3 hours	Elective	2 hours
Total	14 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
CHEM 4610 - Advanced Inorganic Chemistry	3 hours	CHEM 4620 - Advanced Inorganic Chemistry Laboratory	1 hour
4000-level Chemistry/Biochemistry Elective for BSCHM	3 hours	CHEM 4631 - Instrumental Analysis	3 hours
Minor for BSCHM (advanced hours)	3 hours	CHEM 4632 - Instrumental Analysis Laboratory	1 hour
Elective	3 hours	4000-level Chemistry/Biochemistry Elective for BSCHM	3 hours
Elective - advanced	3 hours	Minor for BSCHM (advanced hours)	3 hours
		Elective	3 hours
Total	15 hours	Total	14 hours

Chemistry, BA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Chemistry, BA must be completed.

Chemistry, BA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Chemistry, BA must be completed.

Chemistry, BS with grad track option leading to Chemistry, MS

Admission requirements and program policies

This program will be open to all qualified UNT chemistry majors in their third year. UNT undergraduate students who are in their second or fourth year will only be considered under extraordinary circumstances. Other majors with strong chemistry backgrounds may be considered at the discretion of the UNT Chemistry Department. UNT Undergraduate students must meet the following minimum requirements in order to be considered for admission to the master's program through the grad track pathway in the UNT Chemistry Department:

1. Completion of at least 75 undergraduate credit hours that are counted for the baccalaureate degree.
2. A GPA of 3.5 or higher in undergraduate chemistry coursework, and an overall GPA of 3.5 or higher in undergraduate coursework.

Undergraduate students who do not meet the above criteria, but have significant research experience, may also apply. In such case, a holistic review of the application will be conducted, and the admission will be at the sole discretion of the UNT Chemistry Department.
Students seeking this pathway must submit the Toulouse Graduate School's "Conditional Admission and Advisor Course Approval Form".

Students are responsible for all applicable tuition and fees during the period leading up to the baccalaureate degree.

Upon completing the baccalaureate degree, a formal application must be submitted to the graduate program of the UNT Chemistry Department, typically during the fall semester of the student's senior year. The student's application fee will be waived, and the student may become eligible for Tuition Benefits.

The following is the step-by-step process:

1. Students apply for the grad track option in the junior year
2. After the application is approved and have completed at least 90 credit hours, the students can start taking the graduate courses that are approved for grad track as chemistry electives for the BS degree requirement. For the graduate courses to be counted for the MS degree later, the student must meet the minimum grade requirements of the courses in the MS program.
3. The students must enroll in graduate school in the long semester after finishing their BS degree and should take the remaining graduate courses in the following year(s) to complete their MS degree. If the student did not enroll in graduate school in the long semester after finishing their BS degree, those graduate course credit hours will not be counted anymore for the MS degree even if the student comes back for graduate school in the future.

Standards and procedures for monitoring student progress

The core faculty member for the grad track will be the departmental graduate advisor, who is the Chair of the Graduate Affairs Committee. The graduate advisor will oversee admission and advising for the program. Participating students will take the same graduate courses taken by our regular MS and PhD students.

Program requirements

Up to four of the following graduate level courses may appear on the undergraduate degree plan:

- CHEM 5210 - Advanced Physical Chemistry (offered Spring only)
- CHEM 5500 - Physical Organic Chemistry (offered Fall only)
- CHEM 5570 - Advanced Analytical Chemistry (offered Fall only)
- CHEM 5710 - Advanced Inorganic Chemistry (offered Spring only)
- CHEM 6540 - Chemical Biology Design and Instrumentation (Offered Spring only)
- Graduate-level Selected Topics or elective classes (e.g., CHEM 5390, CHEM 5610, CHEM 5620, CHEM 5640, or CHEM 5650), for which the offerings vary year to year.

In order for the courses to be applicable to the MS degree, the minimum grade requirements for graduate program course work must be met.

All remaining courses for Chemistry, BSCHM must be completed.

Preparing for graduate study

To eventually earn the MS in chemistry, students must demonstrate proficiency in at least two of the five traditional areas of chemistry (analytical chemistry, inorganic chemistry, organic chemistry, physical chemistry, and chemical biology), either by passing a standardized exam in the area or by passing a specified course. Students must also complete a minimum of three formal lecture courses from the list under "Program Requirements" above, two of which must be "core courses" in the areas in which the student demonstrated proficiency (the first five listed are "core courses").

Students are encouraged to discuss eventual MS degree requirements with the departmental graduate advisor.

Minors

Chemistry minor

Recommended minor

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

plus

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

or

- CHEM 3530 - Physical Chemistry for Life Science

or

- CHEM 4670 - Introduction to Medicinal Chemistry (plus 1 advanced hour)

or

- BIOC 3621 - Principles of Biochemistry and
- BIOC 3622 - Principles of Biochemistry Laboratory

Note

CHEM 4940 may not be used to meet degree requirements for the chemistry minor.

Secondary Teacher Certification

Chemistry teacher certification

The College of Science encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in Hickory Hall, Room 254, can assist students with specific requirements for teacher certification.

Teacher certification in chemistry is also available in conjunction with a major in biochemistry.

Requirements utilizing the BA with a major in chemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in chemistry.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

or

- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

or

- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3530 - Physical Chemistry for Life Science

or

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 4700 - Research Methods for Secondary Science Instruction
- CHEM 4900 - Special Problems (Research Experience)
- 3 hours of approved chemistry

- BIOC 3621 - Principles of Biochemistry and
- BIOC 3622 - Principles of Biochemistry Laboratory

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

Requirements utilizing the BS in chemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in chemistry.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

or

- CHEM 1422 - General Chemistry II for the Honors College and

- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II

- CHEM 4610 - Advanced Inorganic Chemistry and
- CHEM 4620 - Advanced Inorganic Chemistry Laboratory

- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory

- CHEM 4700 - Research Methods for Secondary Science Instruction
- 3 hours of approved chemistry

- BIOC 4540 - Biochemistry I

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Additional requirements

See Chemistry, BA or Chemistry, BSCHM for additional course work and GPA requirements.

Students must also complete the required 18 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Physical Science teacher certification (Chemistry)

The College of Science encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in Hickory Hall, Room 254, can assist students with specific requirements for teacher certification.

Teacher certification in physical science is also available in conjunction with majors in biochemistry and physics.

Requirements utilizing the BA with a major in chemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- BIOC 3621 - Principles of Biochemistry and
- BIOC 3622 - Principles of Biochemistry Laboratory

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3530 - Physical Chemistry for Life Science

  or
- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II
- CHEM 4700 - Research Methods for Secondary Science Instruction
- CHEM 4900 - Special Problems (Research Experience)
- 3 hours of approved chemistry

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

Requirements utilizing the BS in chemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- BIOC 4540 - Biochemistry I

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- CHEM 2370 - Organic Chemistry I and
- CHEM 3210 - Organic Chemistry Laboratory I

- CHEM 2380 - Organic Chemistry II and
- CHEM 3220 - Organic Chemistry Laboratory II

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory

- CHEM 3510 - Physical Chemistry I and
- CHEM 3230 - Physical Chemistry Laboratory I

- CHEM 3520 - Physical Chemistry II and
- CHEM 3240 - Physical Chemistry Laboratory II

- CHEM 4610 - Advanced Inorganic Chemistry and
- CHEM 4620 - Advanced Inorganic Chemistry Laboratory

- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory

- CHEM 4700 - Research Methods for Secondary Science Instruction
- 3 hours of approved 4000-level chemistry

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

Additional requirements

See Chemistry, BA or Chemistry, BSCHM for additional course work and GPA requirements.

Students must also complete the required 18 hours for the Mathematics and Science Secondary Teaching minor and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Department of Mathematics

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Ralf Schmidt, Chair

Faculty

The department offers programs of study leading to the BA, MA, MS and PhD degrees with a major in mathematics, and the BSMTH. It also offers minors in mathematics and statistics, and undergraduate academic certificates in statistics, the mathematics of scientific computation, and actuarial science, the latter in cooperation with the College of Business and the Department of Economics. Its faculty is dedicated to excellence in scholarship and teaching. The faculty supports a strong program of instruction and research, having as its core a solid foundation of mathematical theory that furnishes the tools necessary to address and solve crucial problems in maintaining, improving and protecting the world. The program also promulgates mathematics as a discipline in its own right, a body of pure knowledge with exceptional power, enabling its practitioners and those who diligently study it to be adaptable and effective forces in the workplace.

Students who earn degrees in mathematics readily obtain jobs with high-technology companies and in business, industry, government and teaching. Salaries and working conditions compare with those of engineers and scientists.

Students who plan to major in mathematics, physics, chemistry, biology or computer science should have had four years of mathematics in high school, including pre-calculus. Students who are required to take mathematics as part of their degree program in college should have had at least two years of algebra and one year of geometry in high school.

Required placement and testing

The Department of Mathematics enforces prerequisites for MATH 1100, MATH 1190, MATH 1350, MATH 1600, MATH 1610, MATH 1650 and MATH 1710. Students not meeting prerequisites for courses in which they enroll are required to drop the course or face academic penalty.

New students will receive notification of placement in mathematics from the Office of Admissions. Placement is based on materials submitted for admission to UNT including SAT/ACT scores and class rank. Enrollment in mathematics courses beyond the initial placement will depend upon the score on the ACCUPLACER College-Level Mathematics Test.

For more information about placement procedures, please contact the mathematics advising office at 940-565-4045.

Prerequisites

MATH 1190, MATH 1350, MATH 1600, MATH 1650: MATH 1100 or equivalent with a grade of C or better, or UNT mathematics department approval. MATH 1190 may also be taken after completing MATH 1180 with a grade of C or better.

Preparing for graduate school

The degree requirements specified in this catalog are the minimal requirements for an undergraduate degree in mathematics. For students who plan to go to graduate school in mathematics, the department strongly recommends the following courses: MATH 3410, MATH 3510, MATH 3610 and MATH 4500. Other advanced courses should be selected in consultation with the faculty and the undergraduate advisor in the Department of Mathematics.

Mathematics and Science Secondary Teaching

Individuals interested in pursuing certification in math or science teaching at the secondary level may wish to pursue a minor through the Teach North Texas program. See "Teach North Texas" in the College of Science section of this catalog.

Scholarships and financial assistance

The department administers five scholarship funds: the E. H. Hanson Scholarship, the Roger L. Perry Memorial Scholarship, the Mildred Masters McCarty Scholarship, the John Ed Allen Scholarship, the John W. Neuberger Scholarship and the David F. Dawson Endowment for Student Excellence. Jobs as tutors and graders are also available for mathematics majors. Contact the mathematics department office for information and application forms.

Majors

Mathematics with a concentration in Computer Science, BSMTH

A Bachelor of Science in Mathematics with a concentration in Computer Science provides you with the math foundation, analytical skills, and programming abilities needed to work on important and challenging real-world problems in business, industry, medicine, government, and scientific research.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements of this catalog and the College of Science requirements.

Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - First-Year Writing I
- TECM 2700 - Technical Writing

Major requirements

49 hours of mathematics and computer science courses, which must include:

Mathematics core, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I

*Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.

Computer Science core, 15 hours

- CSCE 1010 - Discovering Computer Science
- CSCE 1030 - Computer Science I

  or
- CSCE 1035 - Computer Programming I
- CSCE 1040 - Computer Science II

  or
- CSCE 1045 - Computer Programming II
- CSCE 2100 - Foundations of Computing
- CSCE 2110 - Foundations of Data Structures

Math and Computer Science electives, 15 hours

Minimum 2 courses for Math and Computer Science:

- CSCE 3530 - Introduction to Computer Networks
- CSCE 3850 - Introduction to Computational Life Science
- CSCE 4110 - Algorithms
- CSCE 4201 - Introduction to Artificial Intelligence
- CSCE 4205 - Introduction to Machine Learning
- CSCE 4210 - Game Programming I
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4290 - Introduction to Natural Language Processing
- CSCE 4350 - Fundamentals of Database Systems
- CSCE 4380 - Data Mining
- CSCE 4810 - Bioinformatics Algorithms
- CSCE 4820 - Advances in Bioinformatics
- MATH 3370 - Probability Models
- MATH 3180 - Probability for Engineers
- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3850 - Mathematical Modeling
- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics
- MATH 4815 - Bioinformatics (CSCE 4815 - Bioinformatics)

Laboratory science

Three laboratory science courses intended for science majors are required as follows:

Option 1, Biology emphasis

(must be biology intended for science majors)

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- BIOL 1760 - Biology for Science Majors Laboratory

Plus one of the following physical sciences, with laboratory, chosen from

(must be physical science intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Option 2, Chemistry emphasis

(must be chemistry intended for science majors)

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from CHEM numbered at least 2000.

Option 3, Physics emphasis

(must be calculus-based physics intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from PHYS numbered at least 2000.

Option 4

Students double majoring in Math+CS and another discipline (typically biology, chemistry, physics or engineering) that requires at least 12 hours of laboratory science intended for science and engineering majors may use the same laboratory science courses that satisfy the requirements for the other major to satisfy the laboratory science requirement for the mathematics major.

Foreign language or technical writing

Students may complete either of two options:

Option 1

Proficiency in a foreign language equivalent to 1020 is required. Students are encouraged to choose Spanish for the foreign language requirement.

Option 2

Complete 6 hours of technical writing courses from the following:

- TECM 2700 - Technical Writing
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences

Certificate requirement

The Data Analytics Undergraduate Certificate is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (36) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Students must achieve a grade point average of at least 2.0 in the Math + CS electives.

Mathematics, BA (non–teacher certification)

A Bachelor of Arts with a major in mathematics provides you with the skills needed to work on important, challenging, real-world problems in business, industry, medicine, government and scientific research.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in mathematics (non–teacher certification).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor of arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science requirements.

Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - First-Year Writing I
- TECM 2700 - Technical Writing

Major requirements

37 hours of mathematics courses, which must include:

Mathematics core, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I

*Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.

** Incoming students who have already received an introduction to mathematical proofs may request substitution of MATH 2000 for an upper-level mathematics course numbered 3350 or higher. Please see an advisor for more information.

Depth Requirement, 6 hours

Two courses from one of the following areas:

Analysis

Two of the following:

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3610 - Real Analysis II
- MATH 3740 - Vector Calculus
- MATH 4080 - Differential Geometry
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4520 - Introduction to Functions of a Complex Variable

Algebra

Two of the following:

- MATH 3400 - Number Theory
- MATH 3510 - Abstract Algebra I
- MATH 4010 - Introduction to Mathematical Logic
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4510 - Abstract Algebra II

Probability/statistics

Two of the following:

- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics

Geometry/topology

Two of the following:

- MATH 3740 - Vector Calculus
- MATH 4060 - Foundations of Geometry
- MATH 4080 - Differential Geometry
- MATH 4500 - Introduction to Topology

Breadth requirement, 9 hours

One course in each of the three areas not used to satisfy the depth requirement. One of the following must be taken if neither were completed as part of the depth requirement.

- MATH 3510 - Abstract Algebra I
- MATH 3610 - Real Analysis II

Mathematics elective, 3 hours

One additional upper-level mathematics courses chosen from mathematics courses numbered 3350 or above.

Other course requirements

Science

Three laboratory science courses, at least two of which must be intended for science and engineering majors (Group I and II), and at least one of which must be a physical science course intended for science and engineering majors (Group I).

Group I: A physical science course with lab intended for science and engineering majors

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

Group II: An additional life or physical science course with lab intended for science and engineering majors

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

or

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

or

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

or

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Group III: One additional course

One additional course that meets the University Core Curriculum requirement for the life and physical sciences.

Note: Equivalent honors courses can also be used to satisfy this requirement.

Foreign language

Students may complete either of two options to satisfy the foreign language requirement:

Option 1

Proficiency in a foreign language equivalent to 1020 is required. Students intending to pursue a graduate degree in mathematics are encouraged to study French, German or Russian. Students may take SPAN 1030 in place of SPAN 1010 and SPAN 1020.

Option 2

Complete 6 hours of technical writing courses from the following:

- TECM 2700 - Technical Writing
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences

Breadth requirement

Students should meet with an advisor to ensure compliance with the College of Science breadth requirement.

Computer programming

- CSCE 1010 - Discovering Computer Science

  or
- CSCE 1020 - Program Development

  or
- CSCE 1030 - Computer Science I

Additional information

Students taking mathematics courses at the 2000-level or above are expected to be competent in computer programming, using languages such as BASIC, C, C++, Fortran, PASCAL or Java. Students are encouraged to complete the programming requirement during their freshman or sophomore year. Students who have acquired a solid programming competency in a non-academic setting, such as through work experience, may demonstrate their programming competency by passing a departmental exam in place of the CSCE 1010, CSCE 1020 or CSCE 1030 course requirement.

Minor requirements

One of the following is required:

1. A minor of at least 18 hours (6 advanced). A minor in statistics does not fulfill this requirement.
2. Completion of a second major in addition to mathematics.
3. Completion of the actuarial science certificate. Students must take STAT 3680, MATH 4610 and STAT 4650 for fulfilling degree requirements; students are also encouraged to take MATH 3350 and MATH 3740. Also, no mathematics courses may be chosen for fulfilling the elective requirements of the certificate program.
4. Completion of the data analytics certificate.

Other requirements

Students must achieve at least a 2.0 GPA in all mathematics courses which are applied toward a mathematics major and are numbered 3350 or above.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	MATH 1720 - Calculus II	3 hours
MATH 1710 - Calculus I	4 hours	CSCE 1010 or CSCE 1030	3 hours
MATH 2000 - Discrete Mathematics	3 hours	ENGL or TECM (2nd semester)	3 hours
Creative Arts core	3 hours	Physical Science for Math	4 hours
Government/Political Science core	3 hours		
Total	16 hours	Total	13 hours

Year 2

Semester 1		Semester 2	
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	MATH 3000 - Real Analysis I	3 hours
MATH 2730 - Multivariable Calculus	3 hours	American History core	3 hours
American History core	3 hours	Life and Physical Sciences core	3 hours
Language, Philosophy and Culture core	3 hours	Math Advanced Analysis	3 hours
Science for Math 2	4 hours	Minor for Math	3 hours
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
COS Breadth Requirement	3 hours	COS Breadth Requirement	3 hours
Math Advanced Algebra	3 hours	Math Advanced Geometry/Topology	3 hours
Math Advanced Prob/Stat	3 hours	Minor for Math	3 hours
Minor for Math	3 hours	Minor for Math	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
COS Breadth Requirement	3 hours	3350+ Math	3 hours
Math Advanced Depth	3 hours	Math language/Tech Writing 2	3 hours
Math language/Tech Writing 1	3 hours	Minor for Math - advanced	3 hours
Minor for Math - advanced	3 hours	Elective - advanced	3 hours
Elective - advanced	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Mathematics, BA (teacher certification)

A Bachelor of Arts with a major in mathematics (teacher certification) provides you the math foundation and analytical skills for a successful career in education.

Completion of these course requirements does not guarantee the student's certification. For information about additional certification requirements, consult the Teach North Texas academic advisor.

Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in mathematics (teacher certification).

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science requirements.

Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements the department suggests:

- ENGL 1310 - First-Year Writing I
- TECM 2700 - Technical Writing

Major requirements

40 hours of mathematics courses, which must include:

Mathematics core, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I

*Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.

Secondary teacher preparation, 15 hours

- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- STAT 3680 - Applied Statistics
- MATH 3850 - Mathematical Modeling
- MATH 4050 - Advanced Study of the Secondary Mathematics Curriculum
- MATH 4060 - Foundations of Geometry

Analysis, 3 hours

One of the following:

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3610 - Real Analysis II
- MATH 3740 - Vector Calculus
- MATH 4080 - Differential Geometry
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4520 - Introduction to Functions of a Complex Variable

Algebra, 3 hours

One of the following:

- MATH 3400 - Number Theory
- MATH 3510 - Abstract Algebra I
- MATH 4010 - Introduction to Mathematical Logic
- MATH 4430 - Introduction to Graph Theory

- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4510 - Abstract Algebra II

Note:

At least one of the following must be taken in satisfying either the analysis or algebra requirements:

- MATH 3510 - Abstract Algebra I
- MATH 3610 - Real Analysis II

Other course requirements

Mathematics education

- TNTX 3100 - Conceptual Algebra

Science

Three laboratory science courses are required, as follows:

Group I. A physical science course with lab intended for science and engineering majors

- PHYS 1710 - Mechanics

  and
- PHYS 1730 - Laboratory in Mechanics

  or
- CHEM 1410 - General Chemistry I for Science Majors

  and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Group II. An additional life or physical science course with lab intended for science and engineering majors

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

Group III, One additional course

One additional course that meets the University Core Curriculum requirement for the life and physical sciences.

Note: Equivalent honors courses can also be used to satisfy this requirement.

Additional requirements

Students seeking certification in both math and physics are required to take all of the following:

- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism
- PHYS 3010 - Modern Physics
- PHYS 3030 - Laboratory in Modern Physics

Foreign language

Students may complete either of two options to satisfy the foreign language requirement:

Option 1

Proficiency in a foreign language equivalent to 1020 is required. Students intending to pursue a graduate degree in mathematics are encouraged to study French, German or Russian. Students may take SPAN 1030 in place of SPAN 1010 and SPAN 1020.

Option 2

Complete 6 hours of technical writing courses from the following:

- TECM 2700 - Technical Writing
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences

Computer programming

Students taking mathematics courses at the 2000-level or above are expected to be competent in computer programming, using languages such as BASIC, C, C++, Fortran, PASCAL or Java. Students are encouraged to complete the programming requirement during their freshman or sophomore year. Students who have acquired a solid programming competency in a non-academic setting, such as through work experience, may demonstrate their programming competency by passing a departmental exam in place of the CSCE 1010, CSCE 1020 or CSCE 1030 course requirement. Required courses:

- CSCE 1010 - Discovering Computer Science

  or
- CSCE 1020 - Program Development

  or
- CSCE 1030 - Computer Science I

Minor requirements

A minor in mathematics and science secondary teaching, administered by Teach North Texas, is required.

Other requirements

Students must achieve at least a 2.0 GPA in all mathematics courses which are applied toward a mathematics major and are numbered 3350 or above.

Mathematics, BSMTH (non–teacher certification)

A Bachelor of Science in Mathematics provides you with the skills needed to work on important, challenging, real-world problems in business, industry, medicine, government and scientific research.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor of science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science requirements.

Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - First-Year Writing I
- TECM 2700 - Technical Writing

Major requirements

43 hours of mathematics courses, which must include:

Mathematics core, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I

*Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.

** Incoming students who have already taken an introduction to mathematical proofs may request substitution of MATH 2000 by an upper-level mathematics course numbered 3350 or higher. Please see an advisor for more information.

Depth requirement, 9 hours

9 hours from one of the following areas

Analysis

- MATH 3610 - Real Analysis II

Plus two of the following:

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3740 - Vector Calculus
- MATH 4080 - Differential Geometry
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4520 - Introduction to Functions of a Complex Variable

Algebra

- MATH 3510 - Abstract Algebra I

Plus two of the following

- MATH 3400 - Number Theory
- MATH 4010 - Introduction to Mathematical Logic
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4510 - Abstract Algebra II

Probability/statistics

- STAT 3680 - Applied Statistics
- MATH 4610 - Probability
- STAT 4650 - Statistics

Geometry/topology

- MATH 3740 - Vector Calculus
- MATH 4060 - Foundations of Geometry
- MATH 4080 - Differential Geometry
- MATH 4500 - Introduction to Topology

Breadth requirement, 9 hours

One course in each of the three areas is not used to satisfy the depth requirement. One of the following must be taken if neither were completed as part of the depth requirement:

- MATH 3510 - Abstract Algebra I
- MATH 3610 - Real Analysis II

Mathematics electives, 6 hours

Two additional upper-level mathematics courses chosen from mathematics course numbered 3350 or above.

Other course requirements

Laboratory science

Three laboratory science courses intended for science majors are required as follows:

Option 1, Biology emphasis

(must be biology intended for science majors)

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- BIOL 1760 - Biology for Science Majors Laboratory

Plus one of the following

(must be physical science intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

or

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Option 2, Chemistry emphasis

(must be chemistry intended for science majors)

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from CHEM numbered at least 2000.

Option 3, Physics emphasis

(must be calculus-based physics intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from PHYS numbered at least 2000.

Option 4

Students double majoring in mathematics and another discipline (typically biology, chemistry, physics or engineering) that requires at least 12 hours of laboratory science intended for science and engineering majors may use the same laboratory science courses that satisfy the requirements for the other major to satisfy the laboratory science requirement for the mathematics major.

Option 5

To satisfy the laboratory science requirement for the mathematics major, students with a minor in geography or geology may use:

- GEOL 1610 - Introduction to Geology
- GEOG 1710 - Earth Science

Plus one of the following lecture and laboratory combinations

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or
- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Foreign language

Students may complete either of two options to satisfy the College of Science foreign language requirement:

Option 1

Proficiency in a foreign language equivalent to 1020 is required. Students intending to pursue a graduate degree in mathematics are encouraged to study French, German or Russian.

Option 2

Complete 6 hours of technical writing courses from the following:

- TECM 2700 - Technical Writing
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences

Computer programming

Students taking mathematics courses at the 2000-level or above are expected to be competent in computer programming, using languages such as BASIC, C, C++, Fortran, PASCAL or Java. Students are encouraged to complete the programming requirement during their freshman or sophomore year. Students who have acquired a solid programming competency in a non-academic setting, such as through work experience, may demonstrate their programming competency by passing a departmental exam in place of the CSCE 1010, CSCE 1020 or CSCE 1030 course requirement. Required courses:

- CSCE 1010 - Discovering Computer Science

  or
- CSCE 1020 - Program Development

  or
- CSCE 1030 - Computer Science I

Minor requirements

One of the following is required:

a. A minor of at least 18 hours (6 advanced). A minor in statistics does not fulfill this requirement.

b. Completion of a second major in addition to mathematics.

c. Completion of the actuarial science certificate. Students must take STAT 3680, MATH 4610 and STAT 4650 for fulfilling degree requirements; students are also encouraged to take MATH 3350 and MATH 3740. Also, no mathematics courses may be chosen for fulfilling the elective requirements of the certificate program.

d. Completion of the data analytics certificate.

Other requirements

Students must achieve a grade point average of at least 2.0 in all mathematics courses which are applied toward a mathematics major and are numbered 3350 or above.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ENGL 1310 - First-Year Writing I	3 hours	MATH 1720 - Calculus II	3 hours
MATH 1710 - Calculus I	4 hours	CSCE 1010 or CSCE 1030	3 hours
MATH 2000 - Discrete Mathematics	3 hours	ENGL or TCEM - second semester	3 hours
Creative Arts core	3 hours	Physical Science for Math	4 hours
Government/Political Science core	3 hours		
Total	16 hours	Total	13 hours

Year 2

Semester 1		Semester 2	
MATH 2700 - Linear Algebra and Vector Geometry	3 hours	MATH 3000 - Real Analysis I	3 hours
MATH 2730 - Multivariable Calculus	3 hours	American History core	3 hours
American History core	3 hours	Life and Physical Sciences core	3 hours
Science for Math 2	4 hours	Math Advanced Analysis	3 hours
Minor for Math	3 hours	Minor for Math	3 hours
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Language, Philosophy and Culture core	3 hours	Government/Political Science core	3 hours
Math Advanced Algebra	3 hours	Social and Behavioral Sciences core	3 hours
Math Language/Tech Writing 1	3 hours	Math Advanced Geometry/Topology	3 hours
Minor for Math	3 hours	Math Advanced Prob/Stat	3 hours
Minor for Math	3 hours	Minor for Math - advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
3350+ Math	3 hours	3350+ Math	3 hours
Math Advanced Depth	3 hours	Math Advanced Depth	3 hours
Elective	3 hours	Math Language/Tech Writing 2	3 hours
Elective	3 hours	Minor for Math - advanced	3 hours
Elective	3 hours	Elective - advanced	3 hours
Total	15 hours	Total	15 hours

Mathematics, BSMTH (teacher certification)

A Bachelor of Science in Mathematics with teacher certification provides you the math foundation and analytical skills for a successful career in education.

Completion of these course requirements does not guarantee the student's certification. For information about additional certification requirements, consult the Teach North Texas academic advisor.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the bachelor of science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science requirements.

Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - First-Year Writing I
- TECM 2700 - Technical Writing

Major requirements

46 hours of mathematics courses, which must include:

Mathematics core, 19 hours

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III
- MATH 2000 - Discrete Mathematics
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I

*Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.

Secondary teacher preparation, 15 hours

- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- STAT 3680 - Applied Statistics
- MATH 3850 - Mathematical Modeling
- MATH 4050 - Advanced Study of the Secondary Mathematics Curriculum
- MATH 4060 - Foundations of Geometry

Analysis, 3 hours

One of the following:

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3610 - Real Analysis II
- MATH 3740 - Vector Calculus
- MATH 4080 - Differential Geometry
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4520 - Introduction to Functions of a Complex Variable

Algebra, 3 hours

One of the following:

- MATH 3400 - Number Theory
- MATH 3510 - Abstract Algebra I
- MATH 4010 - Introduction to Mathematical Logic
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4510 - Abstract Algebra II

Mathematics electives, 6 hours

Two additional upper-level mathematics courses numbered 3350 or higher. Recommended courses are:

- MATH 3400 - Number Theory
- MATH 3410 - Differential Equations I
- MATH 3740 - Vector Calculus
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4610 - Probability
- STAT 4650 - Statistics

At least one of the following

At least one of the following must be taken in satisfying either the analysis or algebra requirements:

- MATH 3510 - Abstract Algebra I
- MATH 3610 - Real Analysis II

Other course requirements

Mathematics education

- TNTX 3100 - Conceptual Algebra

Laboratory science

Three laboratory science courses are required, as follows (equivalent honors courses may also be used):

Option 1, Biology emphasis

(must be biology intended for science majors)

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- BIOL 1760 - Biology for Science Majors Laboratory

Plus one of the following physical sciences, with laboratory, chosen from

(must be physical science intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

or

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Option 2, Chemistry emphasis

(must be chemistry intended for science majors)

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I
- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II
- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from CHEM numbered at least 2000.

Option 3, Physics emphasis

(must be calculus-based physics intended for science majors)

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I
- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism
- One additional course that meets the University Core Curriculum requirement for the natural sciences, or any 3 hours from PHYS numbered at least 2000.

Option 4

Students double majoring in mathematics and another discipline (typically biology, chemistry, physics or engineering) that requires at least 12 hours of laboratory science intended for science and engineering majors may use the same laboratory science courses that satisfy the requirements for the other major to satisfy the laboratory science requirement for the mathematics major.

Option 5

To satisfy the laboratory science requirement for the mathematics major, students with a minor in geography or geology may use:

- GEOL 1610 - Introduction to Geology
- GEOG 1710 - Earth Science

Plus one of the following lecture and laboratory combinations

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

or

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

Additional requirements

Students seeking certification in both math and physics are required to take:

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

Foreign language

Students may complete either of two options to satisfy the College of Science foreign language requirement:

Option 1

Proficiency in a foreign language equivalent to 1020 is required. Students are encouraged to choose Spanish for the foreign language requirement.

Option 2

Complete 6 hours of technical writing courses from the following:

- TECM 2700 - Technical Writing
- TECM 4180 - Advanced Technical Communication
- TECM 4190 - Technical Editing
- TECM 4250 - Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences

Computer programming

Students taking mathematics courses at the 2000 level or above are expected to be competent in computer programming, using languages such as BASIC, C, C++, Fortran, PASCAL or Java. Students are encouraged to complete the programming requirement during their freshman or sophomore year. Students who have acquired a solid programming competency in a non-academic setting, such as through work experience, may demonstrate their programming competency by passing a departmental exam in place of the CSCE 1010, CSCE 1020 or CSCE 1030 course requirement. Required courses:

- CSCE 1010 - Discovering Computer Science

  or
- CSCE 1020 - Program Development

  or
- CSCE 1030 - Computer Science I

Minor requirements

A minor in mathematics and science secondary teaching, administered by Teach North Texas, is required.

Other requirements

Students must achieve a grade point average of at least 2.0 in all mathematics courses which are applied toward a mathematics major and are numbered 3350 or above.

Mathematics, BA with grad track option leading to Business Administration, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Mathematics, BA (non–teacher certification) must be completed.

Mathematics, BA with grad track option leading to Management Consulting, MBA

Admission requirements and program policies

Admission requirements

After completing at least 75 credit hours of undergraduate coursework, students are eligible for acceptance in the grad track option. In this grad track option, the student will take nine (9) credit hours of graduate courses while completing an undergraduate degree. After earning the undergraduate degree, these credit hours can be counted toward the MBA degree.

Prior to registering for these courses, the student must be admitted to the grad track option and obtain approvals from the undergraduate and graduate coordinators. Students will be required to hold a 3.5 GPA at the time of application and be identified by the department as an exceptional candidate for the grad track pathway.

Final admission

- a 3.5 GPA (will qualify the student for a test waiver)
- successful completion of all grad track pathway courses with a GPA of 3.5 or higher
- 3 letters of recommendation
- essay
- resume
- official application submitted and approved by the Toulouse Graduate School

Program policies

Students meeting the grad track requirements will be notified to start the accelerated program after completing 90 credit hours of coursework toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

Undergraduate students who have been accepted into a grad track program should complete all of the bachelor's degree requirements and graduate within one academic year of beginning graduate coursework.

Program requirements

Students may take 9 hours from the following:

- BCIS 5150 - Leveraging Information Technology for Business (BCIS 3610 - Basic Information Systems)
- MGMT 5140 - Organizational Behavior and Analysis (MGMT 3720 - Organizational Behavior)
- MGMT 5710 - Seminar in Business Ethics and Social Responsibility (MGMT 3880 - Business Ethics and Social Responsibility)
- MKTG 5150 - Marketing Management (MKTG 3650 - Foundations of Marketing Practice)

Note

All remaining courses for the Mathematics, BA (non–teacher certification) must be completed.

Mathematics, BS with grad track option leading to Mathematics, MS

Admission requirements

This grad track option is an accelerated program for undergraduate students seeking a BS/MS. Qualified students may take a maximum of 12 graduate credit hours while completing the BS. These credits will be counted towards both the BS and the MS.

The student will apply for the grad track option during their junior year. The following criteria must be met:

1. At least 75 credit hours must have been completed, with a GPA of 3.5 or higher.
2. MATH 3510, MATH 3610, and MATH 4500 must have been completed prior to admission to the grad track program, all with a grade of A.
3. Applicants must be projected to complete the BS during the academic year following the academic year in which they apply.

After the BS is earned, the graduate credits will be transferred to the MS program.

Program requirements

The MS grad track program is designed to encourage talented undergraduates to consider remaining at UNT for an advanced degree, with a view to attracting them to the PhD program.

After the application is approved and at least 90 credit hours have been completed, the student may begin enrolling in graduate courses approved for the grad track.

Any four 5000-level math graduate courses other than Math 5000 or Math 5600 may appear on the undergraduate degree plan.

In order for the courses to be applicable to the MS degree, the minimum grade requirements for graduate program course work must be met.

NOTES:

- Students should discuss with the graduate advisor the possibility of taking preparatory courses before taking core courses:
  - Math 5110-5120 is preparatory for Math 5310-5320
  - Math 5400 is preparatory for Math 5410-5420
  - Math 5500 is preparatory for Math 5520-5530
- Students should verify with the departmental undergraduate advisors that all requirements for the BSMTH are met. Graduate courses appearing on the undergraduate degree plan apply to the different BSMTH concentrations as follows:
  - Analysis: 5110-5120, 5310-5320, 5400, 5410-5420
  - Algebra: 5500, 5520-5530
  - Geometry/Topology: 5010-5020, 5610-5620
  - Probability/Statistics: 5810-5820
  - For other graduate courses, consult with the graduate advisor.

All remaining courses for Mathematics, BS must be completed.

Preparing for full-time graduate study

To eventually earn the MS in mathematics:

1. The student will apply to Toulouse Graduate School within the first semester of the senior year. The online application and all required documents for admission to the MS program in Mathematics must be submitted.
2. The student must enroll in graduate school in the long semester after finishing the BS. In the following 4 semesters (including summer terms), the remaining 24 hours required for the MS degree must be completed.

   If the student does not enroll in graduate school in the long semester after finishing the BS, graduate hours earned under this program will not count toward any future UNT MS degree.
4. Students are encouraged to discuss eventual M.S. degree requirements with the departmental graduate advisor.

Minors

Mathematics minor

Students planning to minor in mathematics should consult the undergraduate advisor of the Department of Mathematics. The minor requires at least 18 hours of math courses, 6 of which must be advanced.

Requirements

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  *Students have the option to take Math 1810/1820/1830 or MATH 1710/1820/1830 in place of MATH 1710/1720.
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  **At least 12 hours of mathematics courses (6 advanced) above MATH 1830.

Education, BS majors may substitute 3 hours

In place of 3 of the 12 hours required above MATH 1830, Education, BS majors seeking certification in elementary education may substitute 3 hours from:

- MATH 1350 - Mathematics for Elementary Education Majors I

  or
- MATH 1351 - Mathematics for Elementary Education Majors II

Note

Generally, transfer credit may be applied toward a mathematics minor only if it is a mathematics (or statistics) course at the level of calculus or above and taught by mathematics (or statistics) faculty under a MATH (or STAT) course number. Students with questions about the applicability of transfer credit toward a mathematics minor should consult an advisor in the Department of Mathematics.

Recommended advanced course selections to complement various majors

Computer science majors

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3400 - Number Theory
- MATH 3410 - Differential Equations I
- STAT 3680 - Applied Statistics
- MATH 4100 - Fourier Analysis
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices

Engineering majors

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- STAT 3680 - Applied Statistics
- MATH 3740 - Vector Calculus
- MATH 4100 - Fourier Analysis
- MATH 4520 - Introduction to Functions of a Complex Variable

Biology and chemistry majors

- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I
- STAT 3680 - Applied Statistics

Business and economics majors

- MATH 3000 - Real Analysis I (if interested in economics doctoral programs or theoretical graduate programs in finance)
- MATH 3350 - Introduction to Numerical Analysis
- STAT 3680 - Applied Statistics
- MATH 3740 - Vector Calculus
- MATH 4610 - Probability

Physics majors

- MATH 3410 - Differential Equations I
- MATH 3420 - Differential Equations II
- MATH 3740 - Vector Calculus
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4520 - Introduction to Functions of a Complex Variable
- MATH 4610 - Probability

Education, BS (elementary education) majors

- MATH 3000 - Real Analysis I (Math specialist)
- MATH 3400 - Number Theory
- MATH 3410 - Differential Equations I
- STAT 3680 - Applied Statistics

Undergraduate Academic Certificates

Actuarial Science certificate

Students interested in this interdisciplinary certificate program should contact the Undergraduate Advisor of the Department of Mathematics.

Requirements for admission to program

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- STAT 3680 - Applied Statistics

  or
- ECON 4630 - Data Analysis in Economics

  or
- DSCI 3710 - Business Statistics with Spreadsheets
- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- CSCE 1010 - Discovering Computer Science

  or
- CSCE 1020 - Program Development

  or
- CSCE 1030 - Computer Science I (CSCE 1040 is encouraged but not required)
- FINA 3770 - Finance

Certificate requirements

This certificate requires 18 hours of courses in one of the following two tracks:

Math major track

Students whose only major is mathematics and who wish to earn a certificate in actuarial science must complete:

- ECON 4870 - Introduction to Econometrics
- FINA 4200 - Investments
- MATH 3860 - Financial Mathematics

Plus three courses selected from

- FINA 4210, FINA 4300, FINA 4310 and FINA 4400. FINA 4310 is recommended.
- RMIN 3100 (or RMIN 2500 , or any 4000-level RMIN course. Recommended courses are RMIN 3100 (or RMIN 2500), FIPL 4200, and RMIN 4310. Please note that credits cannot be given for both RMIN 2500 and RMIN 3100. Students are also encouraged to seek internships that may be pursued in conjunction with RMIN 4800 .
- ECON 4030 and ECON 4875.
- Any other course must receive approval from an undergraduate advisor in the Department of Mathematics.

Note: Students whose only major is mathematics may not apply mathematics courses toward this certificate. Actuarial certificate students who are math majors should take MATH 3350, MATH 3410, MATH 3740, MATH 4610 and MATH 4650 as part of the requirements for the math major.

Non-math major track

Students whose degree program includes a major other than mathematics and who wish to earn a certificate in actuarial science must complete:

- ECON 4870 - Introduction to Econometrics
- FINA 4200 - Investments
- MATH 3860 - Financial Mathematics
- MATH 4610 - Probability

Plus two courses selected from

- MATH 3350, MATH 3410, MATH 3740, and MATH 4650. MATH 4600 is recommended.
- FINA 4210, FINA 4300, FINA 4310 and FINA 4400. FINA 4310 is recommended.
- RMIN 3100 (or RMIN 2500), or any 4000-level RMIN course. Recommended courses are RMIN 3100 (or RMIN 2500), RMIN 4200 and RMIN 4310. Please note that

credits cannot be given for both RMIN 2500 and RMIN 3100. Students are also encouraged to seek internships that may be pursued in conjunction with RMIN 4800.

- ECON 4030 and ECON 4875.
- Any other course must receive approval from an undergraduate advisor in the Department of Mathematics.

Preparation for actuarial exams

This program should prepare students for the preliminary actuarial exams, as follows:

a. Actuarial Exam 1/P

Students are encouraged to take MATH 4610 and attempt Exam 1/P before the end of the junior year.

- MATH 4610 - Probability

b. Actuarial Exam 2/FM

- FINA 3770 - Finance
- FINA 4210 - Introduction to Derivatives
- MATH 3860 - Financial Mathematics

c. VEE (Validation by Educational Experience)–Economics

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics

d. VEE–Applied Statistical Methods

- ECON 4030 - Economic Cycles and Forecasting
- ECON 4870 - Introduction to Econometrics

e. VEE–Corporate Finance

- FINA 3770 - Finance
- FINA 4200 - Investments

Additional information

- Students are also encouraged to seek internships that may be pursued in conjunction with RMIN 4800. For more information on obtaining internships, feel free to contact the UNT Internships Office (Chestnut Hall 155, 565-2861, internships.unt.edu, internships@unt.edu).
- Students are encouraged to participate in the Gamma Iota Sigma (GIS), an international risk management, insurance, and actuarial science fraternity.
- More information about the actuarial exams, the VEE requirements, careers in actuarial science and internship opportunities may be found at www.beanactuary.org, www.soa.org and www.casact.org.

Department of Physics

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Carlos Ordonez, Chair
Rebekah Purvis, Associate Chair

Faculty

From advancing state-of-the-art processes in the semiconductor industry to developing computer software for simulating exotic phenomena, physicists are helping to expand the frontiers of both basic science and advanced technology. The diversity of work conducted by physicists occurs because physical science and engineering disciplines are based, to a large extent, on physics principles. A bachelor's degree in physics also prepares students for graduate work in acoustics, astrophysics, biophysics, computational physics, medical physics and other subfields and interdisciplinary fields in physics.

Undergraduate research

Undergraduate research opportunities are available for undergraduate students interested in physics. Students should consult the undergraduate advisor.

Mathematics requirements

Students who must schedule physics courses with mathematics prerequisites must plan their mathematics programs carefully. Freshmen should note mathematics placement procedures described in the Department of Mathematics section of this catalog. Physics majors who are advised to take MATH 1650 prior to MATH 1710 or MATH 1810 may count MATH 1650 as an elective credit.

Mathematics and Science Secondary Teaching

Individuals interested in pursuing certification in math or science teaching at the secondary level may wish to pursue a minor through the Teach North Texas program. See "Teach North Texas" in the College of Science section of this catalog.

Majors

Physics with a concentration in Astrophysics, BSPHY

A Bachelor of Science in physics gives you the strong math, problem solving and analytical skills needed to study the structure and interaction of matter and energy — the way things work.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements (excluding foreign language and natural and life sciences).

Required courses

Minimum of 49 hours in physics, including:

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

or

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

and

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

or

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3420 - Electronics
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis
- PHYS 4955 - Senior Thesis Capstone

Course that may not count towards the degree

- PHYS 2900 - Special Problems
- PHYS 2910 - Special Problems
- PHYS 4900 - Special Problems
- PHYS 4910 - Special Problems

Astrophysics concentration

Complete 3 of the following courses:

- PHYS 3950 - Observational Astronomy
- PHYS 4150 - Experimental Physics I
- PHYS 4650 - Introduction to Modern Astrophysics
- PHYS 4750 - Galaxies and Cosmology

Other course requirements

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or
- MATH 1710 - Calculus I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I

Minor requirements

Students seeking secondary teacher certification should see requirements listed under Physics/Mathematics teacher certification.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Substitutions in the BA or BS degree programs may be made only with the written consent of the department chair. A minimum grade point average of 2.5 in all advanced-level science and mathematics courses is required for graduation with a degree in physics.

Physics with a concentration in Computational Physics, BSPHY

A Bachelor of Science in physics gives you the strong math, problem solving and analytical skills needed to study the structure and interaction of matter and energy — the way things work.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements (excluding foreign language and natural and life sciences).

Required courses

Minimum of 49 hours in physics, including:

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or
- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  and
- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3420 - Electronics
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis
- PHYS 4955 - Senior Thesis Capstone

Course that may not count towards the degree

- PHYS 2900 - Special Problems
- PHYS 2910 - Special Problems
- PHYS 4900 - Special Problems
- PHYS 4910 - Special Problems

Computational physics concentration

To earn a concentration in computational physics, students must complete 3 courses of the following 4 courses. Physics courses chosen will count as upper level physics electives in the degree requirements. In addition, the topic of senior thesis and senior thesis capstone must be on computational physics.

- CHEM 4660 - Introduction to Computational Chemistry
- MATH 3350 - Introduction to Numerical Analysis
- PHYS 3910 - Intermediate Computational Modeling of Physical Systems
- PHYS 4600 - Computer Based Physics

Other course requirements

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or
- MATH 1710 - Calculus I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I

Minor requirements

Students seeking secondary teacher certification should see requirements listed under Physics/Mathematics teacher certification.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Substitutions in the BA or BS degree programs may be made only with the written consent of the department chair. A minimum grade point average of 2.5 in all advanced-level science and mathematics courses is required for graduation with a degree in physics.

Physics with a concentration in Engineering Physics, BSPHY

A Bachelor of Science in physics gives you the strong math, problem solving and analytical skills needed to study the structure and interaction of matter and energy — the way things work.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Required courses

Minimum of 49 hours in physics, including:

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or
- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  and
- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or
- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

  or
- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3420 - Electronics
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics

- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)

Courses that may not count towards the degree

- PHYS 2900 - Special Problems
- PHYS 2910 - Special Problems
- PHYS 4900 - Special Problems
- PHYS 4910 - Special Problems

Engineering Physics Concentration

At least 9 hours chosen from the following courses:

- EENG 2620 - Signals and Systems and
- EENG 2621 - Signals and Systems Lab

- EENG 2710 - Digital Logic Design and
- EENG 2711 - Digital Logic Design Lab

- EENG 3710 - Computer Organization
- PHYS 4150 - Experimental Physics I
- PHYS 4220 - Electromagnetic Waves
- PHYS 4250 - Advanced Photonics for Microscopy and Spectroscopy
- PHYS 4420 - Physical Optics
- PHYS 4500 - Introduction to Solid-State Physics
- PHYS 4520 - Physics of Nanoscale Materials
- PHYS 4600 - Computer Based Physics

Other course requirements

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or

- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or

- MATH 1710 - Calculus I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I

Minor requirements

Students seeking secondary teacher certification should see requirements listed under Physics/Mathematics teacher certification.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Other requirements

Substitutions in the BA or BS degree programs may be made only with the written consent of the department chair. A minimum grade point average of 2.5 in all advanced-level science and mathematics courses is required for graduation with a degree in physics.

Physics, BSPHY

A Bachelor of Science in physics gives you the strong math, problem solving and analytical skills needed to study the structure and interaction of matter and energy — the way things work.

Degree requirements

Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Science degree requirements.

Major requirements

Option I required courses

Minimum of 49 hours in physics, including:

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  and

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

- PHYS 1520 - General Physics II with Calculus and

- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3420 - Electronics
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- Plus 9 additional hours of advanced-level physics courses

Courses that may not count toward the degree

- PHYS 2900 - Special Problems
- PHYS 2910 - Special Problems
- PHYS 4900 - Special Problems
- PHYS 4910 - Special Problems

Option II required courses

Minimum of 39 hours in physics, including:

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

  or

- PHYS 1410 - General Physics I and
- PHYS 1430 - General Physics Laboratory I

  and

- PHYS 1420 - General Physics II and
- PHYS 1440 - General Physics Laboratory II

  or

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- Plus 3 additional hours of advanced-level physics courses

Courses that may not count toward the degree

- PHYS 2900 - Special Problems
- PHYS 2910 - Special Problems
- PHYS 4900 - Special Problems
- PHYS 4910 - Special Problems

Other course requirements

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or

- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or

- MATH 1710 - Calculus I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I

Minor requirements

Option II requires a minor in mathematics and science secondary teaching or a minor in physical science secondary teaching or a minor in general engineering technology. Students seeking secondary teacher certification should see requirements listed under Teacher Certification.

Other requirements

Substitutions in the BA or BS degree programs may be made only with the written consent of the department chair. A minimum grade point average of 2.5 in all advanced-level science and mathematics courses is required for graduation with a degree in physics.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Science.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
CHEM 1410 - General Chemistry I for Science Majors	3 hours	CHEM 1420 - General Chemistry II for Science Majors	3 hours
CHEM 1430 - Laboratory Sequence for General Chemistry I	1 hour	CHEM 1440 - Laboratory Sequence for General Chemistry II	1 hour
MATH 1710 - Calculus I	4 hours	MATH 1720 - Calculus II	3 hours
Communication core	3 hours	Communication core	3 hours
Elective	3 hours	Physics Foundation Course & Lab	4 hours
Total	14 hours	Total	14 hours

Year 2

Semester 1		Semester 2	
MATH 2730 - Multivariable Calculus	3 hours	MATH 2700 - Linear Algebra and Vector Geometry	3 hours
Government/Political Science core	3 hours	PHYS 3010 - Modern Physics	3 hours
Language, Philosophy and Culture core	3 hours	PHYS 3030 - Laboratory in Modern Physics	1 hour
Physics Foundations Seq 2 Course & Lab	4 hours	Creative Arts core	3 hours
Elective	3 hours	Government/Political Science core	3 hours
		Elective	2 hours
Total	16 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
MATH 3410 - Differential Equations I	3 hours	PHYS 3420 - Electronics	4 hours
PHYS 3210 - Mechanics	3 hours	PHYS 3510 - Physics, Computation and Software Applications	3 hours
PHYS 3310 - Mathematical Methods in the Physical Sciences	3 hours	PHYS 4110 - Statistical and Thermal Physics	3 hours
American History core	3 hours	American History core	3 hours
Elective - advanced	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	16 hours

Year 4

Semester 1		Semester 2	
PHYS 4210 - Electricity and Magnetism	3 hours	PHYS 4310 - Quantum Mechanics	3 hours
PHYS 4950 - Senior Thesis	3 hours	PHYS 4955 - Senior Thesis Capstone	3 hours
Advanced PHYS Elective (BA)	3 hours	Advanced PHYS Elective (BA)	3 hours
Advanced PHYS Elective (BA)	3 hours	Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Grad Track Options

Physics, BSPHY with grad track option leading to Physics, MS

Admission criteria

1. Student must be a pursing a BA or BS degree in physics.
2. Student must have a 3.5 GPA.
3. Student must be identified as an "Exceptional Undergraduate Student" by evidence of strong interest in and aptitude for research, which could be in the form of participation in a summer REU program, enrollment in a special problems research course with a faculty member or volunteer work with a research group. A recommendation letter from the research supervisor will be considered in the evaluation.
4. Student must have completed 75 credit hours before being "conditionally" admitted to the grad track program.
5. Student will seek admission to the program through assistance with the physics student advisor and the undergraduate coordinator; along with at least two letters of faculty endorsement; supporting the student's exceptional qualities and aptitude for success in the grad track program. The student will need to submit a Toulouse Graduate School "Conditional Admission and Advisor Course Approval form" to ensure the grad track courses will satisfy degree requirements for the student's bachelor degree.

Program requirements

Any or all of the following four courses may appear on the undergraduate degree plan. These classes will be used for the undergraduate physics electives.

PHYS 5450 Survey of Solid State Physics

- PHYS 5700 Computational Physics
- PHYS 5710 Advanced Classical Mechanics I
- PHYS 5750 Selected Topics in Materials Physics

All remaining courses for Physics, BSPHY must be completed.

Minors

Physics minor

A minor in physics consists of a minimum of 18 hours of physics courses, including 10 advanced hours. PHYS 2900, PHYS 2910, PHYS 4900 and PHYS 4910 may not count toward a minor in physics.

Secondary Teacher Certification

Physical Science teacher certification (Physics)

The College of Science encourages students to explore teaching at the secondary level as a career option. The student's academic advisor in the Dean's Office for Undergraduates and Student Advising in Hickory Hall, Room 283, can assist students with specific requirements for teacher certification.

Teacher certification in physical science is also available in conjunction with majors in biochemistry and chemistry.

Requirements utilizing the BA with a major in physics

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

  or

  MATH 1710 - Calculus I and

  MATH 1820 - Calculus for Science and Engineering II and

  MATH 1830 - Calculus for Science and Engineering III

  and
- MATH 2730 - Multivariable Calculus

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- 15 hours any upper-division PHYS courses (except PHYS 4900, PHYS 4910)

Requirements utilizing the BS in physics, option II

Upon completion of this program, students will be prepared to sit for the certification examinations in Physical Science.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry

- MATH 1710 - Calculus I and
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I and
- MATH 1820 - Calculus for Science and Engineering II and
- MATH 1830 - Calculus for Science and Engineering III

  or

  MATH 1710 - Calculus I and

  MATH 1820 - Calculus for Science and Engineering II and

  MATH 1830 - Calculus for Science and Engineering III

  and
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- Physics elective (3 hours advanced)

Additional information

See Physics, BSPHY for additional course work and GPA requirements.

Students must also complete the required 22 hours for the mathematics and science secondary teaching and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

Physics/Mathematics teacher certification

The College of Science encourages students to explore teaching at the secondary level as a career option. The Teach North Texas program advisor can assist students with specific requirements for teacher certification.

Requirements utilizing the BA with a major in physics

Upon completion of this program, students will be prepared to sit for the certification examinations in Physics/Mathematics.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or

- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or

  MATH 1710 - Calculus I and

  MATH 1820 - Calculus for Science and Engineering II and

  MATH 1830 - Calculus for Science and Engineering III

  and
- MATH 2730 - Multivariable Calculus
- MATH 3000 - Real Analysis I
- MATH 4060 - Foundations of Geometry

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- 15 hours of any upper-division PHYS courses (except PHYS 4900, PHYS 4910)

Requirements utilizing the BS in Physics, Option II

Upon completion of this program, students will be prepared to sit for the certification examinations in Physics/Mathematics.

- CHEM 1410 - General Chemistry I for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry I

  or
- CHEM 1412 - General Chemistry I for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry

  or
- CHEM 1413 - Honors General Chemistry I and
- CHEM 1430 - Laboratory Sequence for General Chemistry

- CHEM 1420 - General Chemistry II for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry II

  or
- CHEM 1422 - General Chemistry II for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry

  or
- CHEM 1423 - Honors General Chemistry II and
- CHEM 1440 - Laboratory Sequence for General Chemistry

- MATH 1710 - Calculus I
- MATH 1720 - Calculus II

  or
- MATH 1810 - Calculus for Science and Engineering I
- MATH 1820 - Calculus for Science and Engineering II
- MATH 1830 - Calculus for Science and Engineering III

  or

  MATH 1710 - Calculus I and

  MATH 1820 - Calculus for Science and Engineering II and

  MATH 1830 - Calculus for Science and Engineering III

  and
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- MATH 4060 - Foundations of Geometry

- PHYS 1510 - General Physics I with Calculus and
- PHYS 1530 - General Physics with Calculus Laboratory I

  or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics

- PHYS 1520 - General Physics II with Calculus and
- PHYS 1540 - General Physics with Calculus Laboratory II

  or

- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Electricity and Magnetism

- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics

- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 3510 - Physics, Computation and Software Applications
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- Physics elective (3 hours advanced)

Additional Information:

See major for additional course work and GPA requirements.

Students must also complete the required 22 hours for the minor in mathematics and science secondary teaching and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program office for more information on enrolling in the certification courses.

All state certification requirements and information on required examinations are available on the website of the State Board for Educator Certification (SBEC), tea.texas.gov/about-tea/leadership/state-board-educator-certification/state-board-educator-certification.

College of Visual Arts and Design

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Art Building, Room 101

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940-565-4001
Web site: cvad.unt.edu

Student Services Office
Art Building, Room 232
940-565-2216

Karen Hutzel, Dean
Eric Ligon, Senior Associate Dean for Administrative Affairs
Heidi Strobel, Associate Dean for Academic and Student Affairs

Faculty

The College of Visual Arts and Design fosters creative futures for its diverse student population and the region through rigorous arts- and design-based education, arts and design client-based studio practice, scholarship and research. Together, students, faculty, staff, administrators, the college advisory board and alumni comprise the UNT College of Visual Arts and Design. The college is home to an abundant plurality of voices, visions and aspirations. Nonetheless, we share common values and sense of purpose.

The University of North Texas is accredited by the National Association of Schools of Art and Design (11250 Roger Bacon Drive, Suite 21, Reston, VA, 20190; 703-437-0700).

Academic advising

CVAD Academic Advisors assist continuing, freshman and transfer students pursuing majors or minors in the College of Visual Arts and Design Milnes Advising Center, Art Building, Room 232. Advisors consult with students in the selection of courses and answer questions about selecting a major, degree audits, application of transfer credit, and general academic requirements, policies and procedures. New students and continuing CVAD majors who are on probation must meet with an advisor prior to registration.

Academic requirements

Students pursuing majors and minors within the College of Visual Arts and Design must maintain at least a 2.5 grade point average in all art courses. Only grades of C (2.0) or better in art courses will count toward a student's degree requirements. A grade of C or better is required in any art course to count as a prerequisite. The teacher certification program for ARTE majors requires a 2.75 cumulative GPA on all UNT and transfer work.

Advanced Placement

Students who have completed Advanced Placement art courses in high school, earning scores of 4 or 5, may receive the following credit toward UNT degrees in art:

AP Art Examination	UNT Equivalent Credit	Hours
Art History	ART 2350 or ART 2360 or ART 2370	3 hours
Art: Studio Art, Drawing Portfolio	ART 1600	3 hours
Art: Studio Art, 2D Design Portfolio	ART 1800	3 hours
Art: Studio Art, 3D Design Portfolio	ART 1700	3 hours

International Baccalaureate

Students who have completed the International Baccalaureate ART/DESIGN higher level examinations with a score of 5 or higher should consult the College of Visual Arts and Design Advising Director regarding the application of IB credit toward courses or degree programs in the College of Visual Arts and Design.

Degree requirements and the University Core Curriculum

Occasionally a course required for a degree may also satisfy a requirement of the University Core Curriculum. In addition to taking the required course, a student may elect to take a different course from among those available to fulfill that core requirement; doing so, however, may add to the total number of hours required for the degree. Students who have questions regarding degree and core requirements should consult a college degree program advisor.

Programs of study

The college offers programs leading to the minor, Bachelor of Arts (BA) and Bachelor of Fine Arts (BFA) degrees as follows:

Interdisciplinary Art and Design Studies Program

- BA—Interdisciplinary Art and Design Studies, with concentrations in arts management and design management and a third option, an open track pathway.

Department of Art Education

- BFA—Art Education

Department of Art History

- BA—Art History
- Minor—Art History

Department of Design

- BFA—Communication Design
- BFA—Fashion Design
- BFA—Interior Design

Department of Studio Art

- BFA—Studio Art, with concentrations in ceramics, drawing and painting, metalsmithing and jewelry, new media art, photography, printmaking, and sculpture.
- Minor—Studio Art, in ceramics, drawing and painting, metalsmithing and jewelry, new media art, photography, printmaking, and sculpture.

Four-year plans

Suggested four-year plans that detail all requirements for each undergraduate degree offered by the College of Visual Arts and Design are available on request from the CVAD Advising Office. These suggested plans may also be accessed through the College of Visual Arts and Design website (www.cvad.unt.edu).

Majors

Interdisciplinary Art and Design Studies with a concentration in Arts Management, BA

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 48 hours of art to include:

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2020 - Digital Tools and Technologies for Creative Practice
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ART 3030 - Digital Communication for Art and Creative Entrepreneurship

Arts management concentration

- ART 4614 - Art and Business
- ART 4899 - Topics in Interdisciplinary Arts and Design Studies
- ART 4940 - Understanding Art Museums
- ARTH 4812 - Modernism and the Visual Arts 1890-1945
- ARTH 4813 - Postmodernism and the Visual Arts 1945–Present
- ARTH 4814 - Theories of Contemporary Art

9 hours (6 advanced) of CVAD electives

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. Internships are strongly recommended for all IADS majors. For specific information, see an academic advisor in the College of Visual Arts and Design Student Services Office (The Milnes Advising Center), Art Building, Room 232.

Minor requirements

Students must choose from management or nonprofit leadership studies.

Note:

A grade of C or above must be earned in the major requirements in the IADS degree as listed in the UNT Catalog to be considered for credit toward the CVAD degree. This grade requirement also includes courses completed in residence or transferred to UNT.

Interdisciplinary Art and Design Studies with a concentration in Design Management, BA

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 42 hours of art to include:

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2020 - Digital Tools and Technologies for Creative Practice
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ART 3030 - Digital Communication for Art and Creative Entrepreneurship

Design management concentration

- ART 4660 - Seminar in Design Management
- ART 4662 - Design Management Integrative Capstone
- 6 hours of ADES courses
- 3 hours advanced Art History

Supporting course work

Supporting course work, 9 hours selected from

- ADES 4615 - Topics in Interior Design
- ADES 4700 - Professional Internship
- ADVG 3100 - Advertising Art Direction for Brands
- ANTH 3101 - Issues in Contemporary American Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 4110 - Design Anthropology
- ANTH 4500 - Language and Culture
- ANTH 4701 - Topics in Sociocultural Anthropology
- ART 4120 - Art on Location
- ART 4450 - Professional Internship
- ART 4614 - Art and Business
- ART 4620 - Grant Writing and Arts Funding
- ART 4640 - Community Engagement in Art and Design
- ART 4899 - Topics in Interdisciplinary Arts and Design Studies
- ARTH 4815 - 20th Century Interiors
- ARTH 4841 - History Interiors: Design and Experience
- ARTH 4842 - History of Communication Design
- ARTH 4849 - Dress and Fashion in the Early Modern Period
- ARTH 4850 - Dress and Fashion: Early Modern to Contemporary
- ARTH 4851 - Topics in the History of Architecture

- ARTH 4852 - Topics in the History of Design
- BCIS 3615 - Business Communication for Information Technology Professionals
- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- COMM 3120 - Nonverbal Communication
- GEOG 3050 - Introduction to Cartography
- FADM 3380 - Global Home Furnishings Industry
- JOUR 3200 - Mass Communication Research Methods
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4270 - Strategic Social Media
- JOUR 4730 - Advanced Photojournalism Portfolio
- LTEC 4510 - Communications in Business, Education and Industry
- MDSE 3370 - Social Psychology of Dress and Appearance
- MDSE 3650 - Advanced Textiles
- PHIL 4740 - Environmental Justice
- SOCI 4600 - Internet and Society

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. Internships are strongly recommended for all IADS majors. For specific information, see an academic advisor in the College of Visual Arts and Design Student Services Office (The Milnes Advising Center), Art Building, Room 232.

Note

A grade of C or above must be earned in the major requirements in the IADS degree as listed in the UNT Catalog to be considered for credit toward the CVAD degree. This grade requirement also includes courses completed in residence or transferred to UNT.

Minor

Students must choose either a minor in management or a minor in marketing.

Interdisciplinary Art and Design Studies, BA

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 45 hours of art to include:

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2020 - Digital Tools and Technologies for Creative Practice
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ART 3030 - Digital Communication for Art and Creative Entrepreneurship

Other course requirements

- ART 4614 - Art and Business
- ART 4899 - Topics in Interdisciplinary Arts and Design Studies
- 12 hours (9 advanced) of CVAD electives

Visual and Material Culture Menu, 9 hours from

- ADVG 3000 - Copywriting for Brands
- ADVG 3100 - Advertising Art Direction for Brands
- ADVG 3300 - Advertising Strategy and Insights
- ADVG 3500 - Advertising Media Buying and Planning
- ADVG 4100 - Advertising Creative Collective and Freelancing
- ANTH 3101 - Issues in Contemporary American Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3120 - Indigenous Cultures of the Southwest
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 3200 - Latin America
- ANTH 3220 - Mayan Culture
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500 - Cultures and Civilizations of the Middle East
- ANTH 3600 - Peoples and Cultures of Europe
- ANTH 3700 - Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 4110 - Design Anthropology
- ARCH 3650 - Origins of Civilization
- BCIS 3615 - Business Communication for Information Technology Professionals
- ICON 3800 - Consumer Psychology
- ICON 4440 - Consumer Analytics and Data Visualization
- CMHT 4000 - Global Discovery in Merchandising and Hospitality Management
- COMM 3120 - Nonverbal Communication
- COMM 3865 - Adaptation and Staging
- COMM 4260 - Performance and Culture
- COMM 4460 - Performance Art
- FADM 3355 - Styles and Trends in Furnishings and Décor

- FADM 3570 - Furniture and Decorative Accessories: Markets, Materials and Merchandising
- GEOG 3050 - Introduction to Cartography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4170 - Field Methods and Mapping
- FADM 3380 - Global Home Furnishings Industry
- HIST 3762 - Rome: The Biography of a City
- ITAL 3050 - Contemporary Italian Culture Through Film
- JOUR 3200 - Mass Communication Research Methods
- JOUR 3700 - Fundamentals of Photojournalism
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4270 - Strategic Social Media
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4730 - Advanced Photojournalism Portfolio
- LTEC 3220 - Computer Graphics in Education and Training
- LTEC 4210 - Introduction to Video Technology
- MDSE 3370 - Social Psychology of Dress and Appearance
- MDSE 3650 - Advanced Textiles
- MDSE 3900 - Branding and Promotion
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4010 - Global Sourcing
- MDSE 4560 - Sustainable Strategies in Merchandising
- MKTG 3660 - Advertising Management
- MKTG 4330 - Strategic Brand Management
- MUAG 4200 - Video Games: Behind the Screens
- PHIL 3100 - Aesthetics
- RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations
- MDSE 4080 - Retail Start-Up
- SPAN 3140 - Mexican Civilization
- SPAN 3150 - Spanish Culture and Civilization
- SPAN 3160 - Latin American Culture and Civilization
- SPAN 3180 - Latin American Culture Through Film
- SPAN 4450 - Contemporary Spanish Culture Through Cinema
- TECM 3200 - Information Design for Electronic Media
- THEA 3070 - History of Theatrical Costume and Décor
- THEA 3095 - Stage Production II
- THEA 3143 - Costume II
- THEA 3146 - Stagecraft II
- THEA 3701 - Scenic Design
- THEA 4130 - Lighting III: Design

Note

Most external courses have prerequisites and/or are open only to students minoring in those disciplines. Consult current course descriptions for more information.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. Internships are strongly recommended for all IADS majors. For specific information see an academic advisor in the College of Visual Arts and Design Student Services Office (The Milnes Advising Center), Art Building, Room 232.

Minor requirements

Students must pursue a minor outside of the College of Visual Arts and Design. Students should select a minor that corresponds to their ultimate career goal, such as anthropology, business, history, journalism, management, marketing, merchandising, or nonprofit leadership studies.

Other requirements

- 24 advanced hours must be completed at UNT.
- 18 hours of art (including 12 advanced) must be completed at UNT.
- Transfer course work to be substituted for required art courses must be approved by a student's faculty advisor during the degree plan process.
- A 2.5 grade point average must be maintained in all art courses; only grades of C or better in art courses will count toward degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ART 2350 - Art History Survey I	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
Communication core	3 hours	ART 2360 - Art History Survey II	3 hours
Mathematics core	3 hours	Communication core	3 hours
CVAD Foundations	3 hours	American History core	3 hours
CVAD Foundations	3 hours	CVAD Foundations	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ART 2020 - Digital Tools and Technologies for Creative Practice	3 hours	ART 3030 - Digital Communication for Art and Creative Entrepreneurship	3 hours
ART 2370 - Art History Survey III	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Social and Behavioral Sciences core	3 hours
Visual and Material Culture selection	3 hours	Minor outside CVAD	3 hours
Minor outside CVAD	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
American History core	3 hours	ART 4614 - Art and Business	3 hours
Life and Physical Sciences core	3 hours	ART 4899 - Topics in Interdisciplinary Arts and Design Studies	3 hours
Visual and Material Culture selection	3 hours	Life and Physical Sciences core	3 hours
Art Elective-advanced	3 hours	Visual and Material Culture selection	3 hours
Minor outside CVAD	3 hours	Minor outside CVAD	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
Art Elective	3 hours	Component Area Option A core	3 hours
Art Elective-advanced	3 hours	Art Elective-advanced	3 hours
Minor outside CVAD	3 hours	Minor outside CVAD	3 hours
Elective	3 hours	Elective-advanced	3 hours
Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Department of Art Education

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Web site: cvad.unt.edu

Nicole Foran, Interim Chair

Faculty

The Department of Art Education offers the BFA (with or without EC-12 art teacher certification), MA, and PhD degrees in art education and the graduate academic certificate in art museum education. Students interested in these degrees and programs may contact the department chair at cvad.arteducation@unt.edu.

Pre-majors

Art Education pre-major

Art Education admission and pre-major requirements

Entering students interested in majoring in art education in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the art education major (and to be eligible to enroll in advanced art education courses), a pre-major must meet all of the following requirements.

Complete with a grade of C or better

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III

- ASTU 2101 - Beginning Ceramics: Handbuilding

  or
- ASTU 2102 - Beginning Ceramics: Throwing

Complete two of the following with a grade of C or better

- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2300 - Introduction to Printmaking Techniques
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I

- ASTU 2801 - Beginning Sculpture: Traditional Methods

  or
- ASTU 2802 - Beginning Sculpture: Digital Methods

Admissions review

Successfully complete admissions review while enrolled in ARTE 3753.

Minimum GPA of 2.75

Majors

Art Education, BFA

The Bachelor of Fine Arts with a major in art education prepares you for a career in elementary, middle or high school art education or a career in community art programs. This degree also prepares you for graduate study in other education areas such as art museum education.

Art Education pre-major requirements

Degree requirements

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 63 hours of art and 21 hours of professional development to include:

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ARTE 3753 - Elements of Art Education Practice
- ARTE 3770 - Intersections of Technology, Art and Education
- ARTE 4101 - Art Education Clinical Teaching Seminar
- ARTE 4708 - Art Education Laboratory School
- ARTE 4760 - Cultural Intersections in Art Education
- ARTE 4785 - Teaching Art to Exceptional Learners
- ARTE 4790 - Radical Imaginings in Art and Education

- ASTU 2101 - Beginning Ceramics: Handbuilding

  or
- ASTU 2102 - Beginning Ceramics: Throwing

- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2300 - Introduction to Printmaking Techniques

- ASTU 2801 - Beginning Sculpture: Traditional Methods

  or

- ASTU 2802 - Beginning Sculpture: Digital Methods
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- 3 advanced hours of art history
- 3 advanced hours of studio art (ASTU)

Additional requirements

In addition to the above courses, ARTE 4750 and ARTE 4780 must be taken as part of the professional development sequence. The major in art education prepares students to teach art in public schools. Students must meet entrance requirements for and be accepted into the College of Education. Once accepted, they must subsequently meet state certification requirements and all general requirements specified by the College of Education.

Other course requirements

- EDCI 3800 - Professional Issues in Teaching
- EDCI 4060 - Content Area Reading
- EDCI 4138 - Student Teaching Secondary School – Art
- EDEE 4101 - Clinical Teaching
- HDFS 3123 - Child Development for Non-Majors

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Services Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.75 grade point average must be maintained in all art courses; only grades of C (2.0) or better in art courses will count toward degree requirements.
- A minimum certification GPA of 2.75 is required for all UNT and transfer course work.
- A GPA of 2.75 is required on all certification courses (pass/no pass courses do not contribute to the GPA).

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ART 2350 - Art History Survey I	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
Communication core	3 hours	ART 2360 - Art History Survey II	3 hours
Government/Political Science core	3 hours	Communication core	3 hours
Mathematics core	3 hours	American History core	3 hours
CVAD Foundations	3 hours	Life and Physical Sciences core	3 hours
CVAD Foundations	3 hours	CVAD Foundations	3 hours
Total	18 hours	Total	18 hours

Year 2

Semester 1		Semester 2	
ART 2370 - Art History Survey III	3 hours	ASTU 2300 - Introduction to Printmaking Techniques	3 hours
ASTU 2201 - Beginning Drawing and Painting: Painting I	3 hours	EDCI 3800 - Professional Issues in Teaching	3 hours
American History core	3 hours	Life and Physical Sciences core	3 hours
Ceramics Menu I	3 hours	Social and Behavioral Sciences core	3 hours
Elective	3 hours	Advanced Art History	3 hours
		Sculpture Menu I	3 hours
Total	15 hours	Total	18 hours

Year 3

Semester 1		Semester 2	
ARTE 3753 - Elements of Art Education Practice	3 hours	ARTE 4750 - Elementary Art Education Practices	3 hours
ARTE 3770 - Intersections of Technology, Art and Education	3 hours	ARTE 4760 - Cultural Intersections in Art Education	3 hours
ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I	3 hours	ARTE 4785 - Teaching Art to Exceptional Learners	3 hours
EDCI 4060 - Content Area Reading	3 hours	ARTE 4708 - Art Education Laboratory School	3 hours
HDFS 3123 - Child Development for Non-Majors	3 hours	Advanced Studio Art	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ARTE 4780 - Secondary Art Education Practices	3 hours	EDCI 4138 - Student Teaching Secondary School – Art	3 hours
ARTE 4790 - Radical Imaginings in Art and Education	3 hours	EDEE 4101 - Clinical Teaching	3 hours
Government/Political Science core	3 hours		
Component Area Option A core	3 hours		
ARTE 4101 - Art Education Clinical Teaching Seminar	3 hours		
Total	15 hours	Total	6 hours

Department of Art History

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Art Building, Room 230

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Web site: cvad.unt.edu/arthistory

Lisa N. Owen, Chair

Faculty

The Department of Art History offers the BA and MA degrees and the minor in Art History.

Majors

Art History, BA

The art history program enhances your understanding of past and contemporary visual art forms. We teach you about global artistic production, relevant technologies, critical methods, learning theories and innovative approaches.

General degree requirements

Candidates for the Bachelor of Arts with a major in art history must meet the following requirements.

Hours required and general/college requirements

A minimum of 120 total semester hours, 42 of which must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 48 hours of art to include

- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ARTH 4800 - Methodologies in the History of Art and Visual Culture
- ARTH 4848 - Art History Senior Seminar
- 6 hours of studio art
- 6 hours of art elective
- Foreign language through the sophomore year (2040–2050)

21 hours of advanced art history courses

9 hours must be taken from the following group:

- ARTH 4802 - Art of Ancient Greece
- ARTH 4803 - Art of Ancient Rome
- ARTH 4804 - Medieval Art
- ARTH 4805 - Topics in Medieval Art
- ARTH 4806 - Topics in Renaissance Art
- ARTH 4807 - Topics in Seventeenth-Century Art
- ARTH 4808 - Eighteenth-Century Art
- ARTH 4809 - Topics in Eighteenth-Century Art
- ARTH 4824 - Topics in Asian Art
- ARTH 4826 - Pompeii: Art and Life on the Bay of Naples
- ARTH 4846 - Art of the Ancient Near East
- ARTH 4847 - Topics in Ancient Mediterranean Art
- ARTH 4849 - Dress and Fashion in the Early Modern Period

Note

Other ARTH advanced art history courses addressing art before the year 1800 may be substituted with department permission.

Minor requirements

A minimum of 18 hours, of which 6 must be advanced, from a field outside the College of Visual Arts and Design. Check with the minor department for specific requirements. The art history faculty strongly recommends that students minor in the foreign language relevant to their career plans in art history. Students double-majoring in art history and any other major are not required to have a minor.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Visual Arts and Design Student Services Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 18 hours of art (including 12 advanced) must be completed at UNT.
- Transfer course work to be substituted for required art courses must be approved by a student's faculty advisor during the degree plan process.
- A 2.5 grade point average must be maintained in all art courses; only grades of C or better in art courses will count toward degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ART 2350 - Art History Survey I	3 hours	ART 2360 - Art History Survey II	3 hours
ART 2370 - Art History Survey III	3 hours	ENGL 1320 - First-Year Writing II	3 hours
ENGL 1310 - First-Year Writing I	3 hours	Social and Behavioral Sciences core	3 hours
MATH 1580 - Survey of Mathematics with Applications	3 hours	Foreign Language-elementary	3 hours
Foreign Language-elementary	3 hours	Studio Art	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ARTH 4800 - Methodologies in the History of Art and Visual Culture	3 hours	American History core	3 hours
American History core	3 hours	Component Area Option A core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Foreign Language-intermediate	3 hours	Foreign Language-intermediate	3 hours
Studio Art	3 hours	Art History-advanced selection*	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
Art History-advanced	3 hours	Art History-advanced	3 hours
Art History-advanced selection*	3 hours	Art History-advanced selection*	3 hours
Art Elective	3 hours	Minor outside CVAD	3 hours
Minor outside CVAD	3 hours	Minor outside CVAD	3 hours
Minor outside CVAD	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ARTH 4848 - Art History Senior Seminar	3 hours	Government/Political Science core	3 hours
Government/Political Science core	3 hours	Art History-advanced	3 hours
Art History-advanced	3 hours	Minor outside CVAD	3 hours
Minor outside CVAD	3 hours	Elective	3 hours
Art Elective	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Notes:

*Art History-advanced selection: see the 21 hours of advanced art history courses under “Major Requirements”.

Grad Track Options

Art History, BA with grad track option leading to Art History, MA

Art history undergraduate students at UNT must have successfully completed at least 75 credit hours of undergraduate coursework or the equivalent with a minimum cumulative GPA of 3.5 before applying for admission to the graduate track. Admission requires completing ARTH 4800 with a grade of A, 15 hours of advanced art history at UNT with a GPA in these courses of 3.5 or better and completion of the undergraduate foreign language requirement.

Any graduate seminar numbered ARTH 58XX is available to students on the grad track.

Other admission requirements include:

- an official transcript
- statement of purpose
- two letters of recommendation from art history program faculty members

Other requirements

Grad track students complete up to 6 graduate hours prior to the completion of the BA degree. Grad track students during this phase may take any graduate art history seminar (ARTH 5800 level or graduate special problems courses (ART 5900) with art history faculty), substituting these for advanced undergraduate art history or electives in the BA degree plan.

Requirements

All remaining courses for Art History, BA must be completed.

Minors

Art History minor

A minor in art history consists of at least 18 hours, including the art history survey sequence and 9 advanced hours selected from courses ARTH 48XX. At least 9 hours must be completed at UNT.

Course sequence

- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- 9 hours of 4000-level art history

Note:

For all students seeking a minor in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design—completed in residence or transferred to UNT—to be considered for credit toward a CVAD minor. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Department of Design

Main Office
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Web site: cvad.unt.edu

Hepi Wachter, Chair

Faculty

The Department of Design offers the Bachelor of Fine Arts (BFA) degree with majors in communication design, fashion design, and interior design. The department offers two graduate degrees: the Master of Fine Arts (MFA) degree with a major in design is offered with concentrations in fashion design and interior design, and the Master of Arts (MA) with a major in design with concentrations in interaction design. Students interested in these degrees may find additional information at cvad.unt.edu/design.

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design–completed in residence or transferred to UNT–to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives, or prerequisites.

Communication Design

The BFA degree program with a major in communication design is structured to help students become effective conceptual thinkers and, most importantly, effective problem solvers. Students have the opportunity to pursue a concentration in either graphic design or user-experience design.

Fashion Design

The Michael W. Faircloth fashion design program prepares its students for successful careers in the fashion industry. In this pursuit, they develop a thorough understanding of the fashion design industry and the analytical, technological, and technical skills necessary to design, develop, and merchandise womenswear or menswear lines for the ready-to-wear market.

Interior Design

The Council of Interior Design Accreditation (CIDA) accredited interior design program is structured to provide students with entry-level exposure to residential and commercial interior design practice. The curriculum prepares students for analyzing interior design problems; assessing existing conditions; researching, synthesizing, and programming solutions; visually and verbally presenting design solutions; and reviewing the process for insights on future design improvements, all to create interior design solutions that are aesthetically and, conceptually successful in support of well-being, promote healthy and safe environments.

Portfolio Reviews

Each major has a review system. Some majors require an entry-level portfolio review and a mid-point portfolio review, which the student must pass to continue in the major. All majors require that seniors pass an exit review prior to graduation. It is the students' responsibility to familiarize themselves with all requirements for their major. Further information regarding the review system for each major is available at cvad.unt.edu/design and the college's Academic Advising Office, Art Building Room 232.

Accreditation

The Bachelor of Fine Arts program in interior design is accredited by the Council for Interior Design Accreditation (206 Grandville Avenue, Suite 350, Grand Rapids, MI 49503-4014; 616-458-0400),

a specialized accrediting body recognized by the Council for Higher Education Accreditation (CHEA) and a member of the Association of Specialized and Professional Accreditors (ASPA).

Pre-majors

Communication Design pre-major

Communication Design admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the communication design major (and to be eligible to enroll in subsequent major-specific course work), a pre-major must meet all the following requirements.

Complete with a grade of C or better

- ADES 1500 - Introduction to Communication Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

Specific additional requirements for each concentration are as follows:

Graphic design

- ADES 1540 - Foundations for Communication Design

User-experience design

- ADES 1543 - Foundations of User-Centered Design

GPA requirements

- Have a minimum 2.75 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.

Portfolio Reviews

Communication Design Candidacy Portfolio Review:

Successful completion of Candidacy Portfolio Review is required for ADES 1540 or ADES 1543.

Communication Design Entry Portfolio Review:

Successful completion of Entry Portfolio Review is required for admission to major and subsequent courses in the degree.

Fashion design pre-major

Fashion Design admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the fashion design major (and to be eligible to enroll in subsequent major-specific course work), a pre-major must meet all of the following requirements:

Complete with a grade of C or better

- ADES 1550 - Introduction to Fashion Design
- ADES 1560 - Fashion Studio 1
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

GPA requirements

- Have a minimum 2.50 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.

Portfolio review

Successful completion of Entry Portfolio Review is required for admission to major and subsequent course work in the degree.

Interior Design pre-major

Admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the interior design major (and to be eligible to enroll in advanced art courses), a pre-major must meet all the following requirements:

30 hours of college courses

Complete a minimum of 30 hours of college courses (including the following).

Complete with a grade of C or better

- ADES 1625 - Introduction to Interior Design
- ADES 2630 - Drawing for Interior Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II

Portfolio review

Submit a portfolio for the Entry Portfolio Review based on work completed in ADES 2630 and pass the review.

GPA requirements

- Have a minimum 2.50 GPA from ADES 1625, ADES 2630, ART 1600, ART 1700, ART 1800, ART 1900 and one from ART 2350 or ART 2360.
- Have a minimum 2.25 UNT grade point average.

Complete one of the following with a grade of C or better:

- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III

Majors

Communication Design with a concentration in Graphic Design, BFA

Communication Design admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the communication design major (and to be eligible to enroll in subsequent major-specific course work), a pre-major must meet all the following requirements.

Complete with a grade of C or better

- ADES 1500 - Introduction to Communication Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

Specific additional requirements for each concentration are as follows:

Graphic design

- ADES 1540 - Foundations for Communication Design

User-experience design

- ADES 1543 - Foundations of User-Centered Design

GPA requirements

- Have a minimum 2.75 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.

Portfolio Reviews

Communication Design Candidacy Portfolio Review:

Successful completion of Candidacy Portfolio Review is required for ADES 1540 or ADES 1543.

Communication Design Entry Portfolio Review:

Successful completion of Entry Portfolio Review is required for admission to major and subsequent courses in the degree.

Degree requirements

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Completion of at least 75 hours of art to include 21 hours of art core (required for all design majors):

- ADES 1500 - Introduction to Communication Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ARTH 4842 - History of Communication Design
- 3 hours of ceramics, drawing and painting, metalsmithing and jewelry, new media art, printmaking, photography, or sculpture
- Advanced art history (6 hours)

Graphic design concentration

- ADES 1510 - Typography I
- ADES 1540 - Foundations for Communication Design
- ADES 2510 - Typography II
- ADES 2515 - Image Making and Color Theory
- ADES 2520 - Graphic Design
- ADES 3500 - Publication Design
- ADES 3510 - Interaction Design I
- ADES 3545 - Communication Design Studio (6 hours)
- ADES 4520 - Graphic Design Advanced Campaigns
- ADES 4525 - Graphic Design Final Portfolio
- ADES 4533 - Advanced Communication Design Studio
- ADES 4541 - Portfolio Development

3 hours selected from:

- ADES 4700 - Professional Internship
- ART 4120 - Art on Location
- ANTH 3101 - Issues in Contemporary American Culture and Society
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 3300 - Peoples and Cultures of the Pacific
- MKTG 3650 - Foundations of Marketing Practice

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Visual Arts and Design Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADES 1500 - Introduction to Communication Design	3 hours	ADES 1540 - Foundations for Communication Design	3 hours
ART 2350 - Art History Survey I	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
Communication core	3 hours	ART 2360 - Art History Survey II	3 hours
CVAD Foundations	3 hours	Mathematics core	3 hours
CVAD Foundations	3 hours	CVAD Foundations	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ADES 1510 - Typography I	3 hours	ADES 2510 - Typography II	3 hours
ADES 2515 - Image Making and Color Theory	3 hours	ADES 2520 - Graphic Design	3 hours
ART 2370 - Art History Survey III	3 hours	American History core	3 hours
ENGL 1320 - First-Year Writing II	3 hours	Social and Behavioral Sciences core	3 hours
Studio Art Elective	3 hours	Art History-advanced	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ADES 3500 - Publication Design	3 hours	ADES 3545 - Communication Design Studio	3 hours
ADES 3510 - Interaction Design I	3 hours	ARTH 4842 - History of Communication Design	3 hours
American History core	3 hours	Life and Physical Sciences core	3 hours
Life and Physical Sciences core	3 hours	Communication Graphic Design-advanced selection*	3 hours
Art History-advanced	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADES 4520 - Graphic Design Advanced Campaigns	3 hours	ADES 4515 - Cause-Based Design	3 hours
ADES 4541 - Portfolio Development	3 hours	ADES 4525 - Graphic Design Final Portfolio	3 hours
ADES 4533 - Advanced Communication Design Studio	3 hours	Component Area Option A core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Life and Physical Sciences core	3 hours	Life and Physical Sciences core	3 hours
Total	15 hours	Total	15 hours

Notes:

*Communication Graphic Design-advanced selection: See the 3 hour course selection under "Graphic design concentration" for requirements.

Communication Design with a concentration in User-Experience Design, BFA

Communication Design admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the communication design major (and to be eligible to enroll in subsequent major-specific course work), a pre-major must meet all the following requirements.

Complete with a grade of C or better

- ADES 1500 - Introduction to Communication Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

Specific additional requirements for each concentration are as follows:

Graphic design

- ADES 1540 - Foundations for Communication Design

User-experience design

- ADES 1543 - Foundations of User-Centered Design

GPA requirements

- Have a minimum 2.75 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.

Portfolio Reviews

Communication Design Candidacy Portfolio Review:

Successful completion of Candidacy Portfolio Review is required for ADES 1540 or ADES 1543.

Communication Design Entry Portfolio Review:

Successful completion of Entry Portfolio Review is required for admission to major and subsequent courses in the degree.

Major requirements

Completion of at least 75 hours of art to include 21 hours of art core (required for all design majors):

- ADES 1500 - Introduction to Communication Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ARTH 4842 - History of Communication Design
- 3 hours of ceramics, drawing and painting, metalsmithing and jewelry, new media art, printmaking, photography, or sculpture
- Advanced art history (6 hours)

User-experience design concentration

- ADES 1513 - Contextual Research Methods
- ADES 1543 - Foundations of User-Centered Design
- ADES 2513 - Typographic Systems
- ADES 2518 - Design Prototyping and User Testing
- ADES 2523 - Digital Patterns and Systems
- ADES 3503 - Planning and Developing Interactive Systems
- ADES 3513 - Data Visualization and the Design of Information
- ADES 3548 - Topics in User-Experience Design
- ADES 4518 - Cause-Based User-Experience Design
- ADES 4523 - Advanced UX Campaigns
- ADES 4528 - Final Portfolio in UXD

6 hours selected from:

- ADES 3548 - Topics in User-Experience Design
- ADES 3700 - Design Thinking: From Ideas to Action
- ANTH 4110 - Design Anthropology
- ART 4120 - Art on Location
- ART 4900 - Special Problems
- ART 4910 - Special Problems
- INDS 4000 - Visual Thinking and Data Design
- JOUR 3250 - Game Design for Journalism
- MKTG 3660 - Advertising Management
- TECM 2700 - Technical Writing

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Minor

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Visual Arts and Design Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.

- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Fashion Design, BFA

Through the Bachelor of Fine Arts with a major in fashion design, you will learn the skills necessary to conceptualize, present and develop finished garments from your original designs.

Fashion Design admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the fashion design major (and to be eligible to enroll in subsequent major-specific course work), a pre-major must meet all of the following requirements:

Complete with a grade of C or better

- ADES 1550 - Introduction to Fashion Design
- ADES 1560 - Fashion Studio 1
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

GPA requirements

- Have a minimum 2.50 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.

Portfolio review

Successful completion of Entry Portfolio Review is required for admission to major and subsequent course work in the degree.

Degree requirements

The following requirements must be satisfied for a Bachelor of Fine Arts with a major in fashion design.

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

- ADES 1550 - Introduction to Fashion Design
- ADES 1560 - Fashion Studio 1
- ADES 2550 - Fashion Studio 2
- ADES 2555 - Fashion Studio 3
- ADES 2560 - Fashion Technology and Prototyping
- ADES 2570 - Fashion Illustration and Media
- ADES 3550 - Fashion: Draping
- ADES 3555 - Fashion Studio 4
- ADES 3560 - Technical Design in Fashion
- ADES 3570 - Computers in Fashion: Presentation
- ADES 3575 - Computers in Fashion: Concept to Product
- ADES 4550 - Fashion: Pre-Collection
- ADES 4555 - Fashion: Collection
- ADES 3590 - Fashion Design: Professional Practice
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- MDSE 2650 - Textiles for Apparel

- MDSE 3350 - History of Fashion

  or
- ARTH 4849 - Dress and Fashion in the Early Modern Period

  or
- ARTH 4850 - Dress and Fashion: Early Modern to Contemporary

- Advanced art elective (6 hours)
- Art elective

Plus one of the following

- ADES 3565 - Fashion Accessories
- ADES 4590 - Fashion Design Studio
- ADES 4595 - Exploration: Fashion Design
- ADES 4700 - Professional Internship
- ART 4120 - Art on Location

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other Requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.
- A maximum of 24 hours of WECM credit may be used for the degree.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADES 1550 - Introduction to Fashion Design	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
ART 2350 - Art History Survey I	3 hours	ART 2360 - Art History Survey II	3 hours
Communication core	3 hours	Communication core	3 hours
CVAD Foundations	3 hours	Mathematics core	3 hours
CVAD Foundations	3 hours	CVAD Foundations	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ADES 1560 - Fashion Studio 1	3 hours	ADES 2555 - Fashion Studio 3	3 hours
ADES 2550 - Fashion Studio 2	3 hours	ADES 2560 - Fashion Technology and Prototyping	3 hours
ART 2370 - Art History Survey III	3 hours	ADES 2570 - Fashion Illustration and Media	3 hours
MDSE 2650 - Textiles for Apparel	3 hours	Social and Behavioral Sciences core	3 hours
Art Elective	3 hours	Art Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ADES 3550 - Fashion: Draping	3 hours	ADES 3555 - Fashion Studio 4	3 hours
ADES 3570 - Computers in Fashion: Presentation	3 hours	ADES 3560 - Technical Design in Fashion	3 hours
Life and Physical Sciences core	3 hours	ADES 3575 - Computers in Fashion: Concept to Product	3 hours
Fashion Design-advanced	3 hours	MDSE 3350 - History of Fashion	3 hours
Art Elective-advanced	3 hours	Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADES 4550 - Fashion: Pre-Collection	3 hours	ADES 4555 - Fashion: Collection	3 hours
ADES 4560 - Fashion Design Concepts	3 hours	ADES 3590 - Fashion Design: Professional Practice	3 hours
American History core	3 hours	American History core	3 hours
Government/Political Science core	3 hours	Component Area Option A core	3 hours
Life and Physical Sciences core	3 hours	Government/Political Science core	3 hours
Total	15 hours	Total	15 hours

Interior Design, BFA

In the Bachelor of Fine Arts with a major in interior design, you will learn, among other subjects, about computer-aided design, lighting, green and sustainable design, design for special populations and the history of furniture and architecture.

Program requirements

Interior design admission and pre-major requirements

Admission and pre-major requirements

Entering students interested in pursuing a major in the Department of Design in the College of Visual Arts and Design are classified as pre-majors.

To be admitted to the interior design major (and to be eligible to enroll in advanced art courses), a pre-major must meet all the following requirements:

30 hours of college courses

Complete a minimum of 30 hours of college courses (including the following).

Complete with a grade of C or better

- ADES 1625 - Introduction to Interior Design
- ADES 2630 - Drawing for Interior Design
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II

Portfolio review

Submit a portfolio for the Entry Portfolio Review based on work completed in ADES 2630 and pass the review.

GPA requirements

- Have a minimum 2.50 GPA from ADES 1625, ADES 2630, ART 1600, ART 1700, ART 1800, ART 1900 and one from ART 2350 or ART 2360.
- Have a minimum 2.25 UNT grade point average.

Complete one of the following with a grade of C or better:

- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified in the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

Required courses

- ADES 1625 - Introduction to Interior Design
- ADES 2630 - Drawing for Interior Design
- ADES 2640 - Interior Design: Design Studio I
- ADES 2650 - Interior Design: Design Communications
- ADES 2660 - Interior Design Technology for Design
- ADES 2670 - Interior Design: Materials and Specifications
- ADES 3630 - Interior Design: Design Studio II
- ADES 3635 - Interior Design: Interior Construction
- ADES 3640 - Interior Design: Design Studio III
- ADES 3645 - Interior Design: Lighting Design
- ADES 4615 - Topics in Interior Design
- ADES 4625 - Interior Design: Professional Practice
- ADES 4630 - Interior Design: Design Studio IV
- ADES 4640 - Interior Design: Design Studio V
- ADES 4700 - Professional Internship
- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ARTH 4815 - 20th Century Interiors
- Advanced Art Elective (12 hours)

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ADES 1625 - Introduction to Interior Design	3 hours	ADES 2630 - Drawing for Interior Design	3 hours
ART 1700 - Foundations: Space (Physical, Temporal and Virtual)	3 hours	ART 1600 - Foundations: Perception and Translation	3 hours
ART 1800 - Foundations: Narrative and Representation	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
ART 2350 - Art History Survey I	3 hours	ART 2360 - Art History Survey II	3 hours
Communication core	3 hours	Mathematics core	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ADES 2640 - Interior Design: Design Studio I	3 hours	ADES 2660 - Interior Design Technology for Design	3 hours
ADES 2650 - Interior Design: Design Communications	3 hours	ADES 2670 - Interior Design: Materials and Specifications	3 hours
ART 2370 - Art History Survey III	3 hours	American History core	3 hours
American History core	3 hours	Communication core	3 hours
Life and Physical Sciences core	3 hours	Social and Behavioral Sciences core	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ADES 3630 - Interior Design: Design Studio II	3 hours	ADES 3635 - Interior Design: Interior Construction	3 hours
Component Area Option core	3 hours	ADES 3640 - Interior Design: Design Studio III	3 hours
Government/Political Science core	3 hours	ADES 3645 - Interior Design: Lighting Design	3 hours
Life and Physical Sciences core	3 hours	ARTH 4815 - 20th Century Interiors	3 hours
Advanced Art Elective	3 hours	Advanced Art Elective	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ADES 4615 - Topics in Interior Design	3 hours	ADES 4625 - Interior Design: Professional Practice	3 hours
ADES 4630 - Interior Design: Design Studio IV	3 hours	ADES 4640 - Interior Design: Design Studio V	3 hours
ADES 4700 - Professional Internship	3 hours	Government/Political Science core	3 hours
Advanced Art Elective	3 hours	Advanced Art Elective	3 hours
Elective	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Department of Studio Art

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Nicole Foran, Chair

Faculty

About

We serve our students by focusing on their intellectual and creative growth, fostering their artistic practice, and preparing them for lifetimes of accomplishment and meaningful contribution as culture creators. The program frames the individual needs of each student through the development of conceptual, aesthetic, and technical skills. While in the College of Visual Arts and Design, students engage with ideas and practices across disciplines while pursuing an in-depth investigation in their area of concentration.

Degree

The Department of Studio Art offers the BFA degree with a major in studio art and concentrations in ceramics, drawing and painting, metalsmithing and jewelry, new media art, photography, printmaking and sculpture. Students interested in these degrees may contact the department office.

Entering students

All students who are admitted to UNT who wish to major in Studio Art will be designated as Pre-Studio Art until they complete the entry review and are accepted into a concentration. Admission to the university does not guarantee admission to the major.

Pre-majors

Studio Art pre-major

Entering students interested in majoring in studio art in the College of Visual Arts and Design will be designated as pre-studio art majors until they complete the entry review and are accepted into a concentration.

Complete a minimum of 30 hours of college courses (including the following):

Complete the following with a grade of C or better

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations

  Complete at least 9 credit hours (three courses) of 2000-level or higher studio art courses with a grade of C or better
- One course must be from the concentration you wish to pursue with the grade of B or better

GPA requirements

Have a minimum 2.5 GPA.

Note

Pass Studio Art Concentration Entry-Portfolio Review as described at cvad.unt.edu.

Majors

Studio Art with a concentration in Ceramics, BFA

We believe clay is a means of expression, a tool for communication and a conduit for critical thinking. The ceramics concentration is an engaged community of undergraduate and graduate students, technical staff and faculty who promote excellence in the field. Students work with the oldest of materials while practicing contemporary methods of fine art, craft and design. The concentration offers knowledge, aesthetics, technical approaches and invention through hands-on experiences with raw materials and technical processes. Throughout the course of study students learn the role of ceramics within the history of art, design and culture while pushing the boundaries of the medium.

Students in the ceramics concentration have active contact with the faculty and technical staff who provide critical and rigorous mentorship, encourage inter-disciplinary exploration and engage students in professional practices. Outside of the classroom, students participate in the student organization, the Clay Guild, which sponsors visiting artist workshops, gallery exhibitions, ceramic art sales and annual travel to the conference sponsored by the National Council on Education for the Ceramic Arts.

Throughout the curriculum, students have regular access to materials, equipment and library resources related to the study of ceramics. All students engage in preparation of clay bodies and glazes, kiln stacking procedures, firing processes (electric, gas, wood, raku, primitive and soda) and surface techniques. The studio environment is one where vessel aesthetics – form and surface design – are taught along with ceramic sculpture – including hand-forming, wheel-throwing and mold-making.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Ceramics concentration

- ARTH 4840 - Topics in the History of Crafts
- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 4100 - Senior Ceramics Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies

6 hours from

- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4100 must be taken over two semesters.

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific

information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Studio Art with a concentration in Drawing and Painting, BFA

Pursuing your passion in drawing and painting means investigating a wide range of issues and media rooted in contemporary and historical art practice. The concentration excels in supporting students as they expand their artistic capabilities by providing and cultivating an intellectual and creative environment for students to explore, experiment and think critically.

Students are encouraged to work across a broad range of contemporary and traditional painting and drawing practices, concepts, aesthetic conventions, methods and techniques. The breadth and depth of our concentration is built upon the diversity of expertise of our faculty and their shared commitment to excellence as working artists and thoughtful teachers.

Students in the drawing and painting program have generous access to accomplished creative professionals and visiting artists who provide excellent mentorship: encouraging an adventurous exploration of media, and modeling a dedication to their creative research, inter-disciplinary experimentation and professional practices.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Drawing and Painting concentration

- ARTH 4813 - Postmodernism and the Visual Arts 1945–Present
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 4200 - Senior Drawing and Painting Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series

6 hours from

- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body

- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design—completed in residence or transferred to UNT—to be considered for credit towards a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4200 must be taken over two semesters.

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Four-year degree plan (example)

The following four-year plan is **one** example of a variety of ways in which you can complete your chosen degree in four years, and will serve as a guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.

Year 1

Semester 1		Semester 2	
ART 2350 - Art History Survey I	3 hours	ART 1900 - Foundations: Systems and Transformations	3 hours
Component Area Option A core	3 hours	ART 2360 - Art History Survey II	3 hours
CVAD Foundations	3 hours	American History core	3 hours
CVAD Foundations	3 hours	Communication core	3 hours
Elective	3 hours	CVAD Foundations	3 hours
Total	15 hours	Total	15 hours

Year 2

Semester 1		Semester 2	
ART 2370 - Art History Survey III	3 hours	ASTU 2202 - Beginning Drawing and Painting: Painting II	3 hours
ASTU 2201 - Beginning Drawing and Painting: Painting I	3 hours	American History core	3 hours
Government/Political Science core	3 hours	Government/Political Science core	3 hours
Beginning ASTU course selection*	3 hours	Beginning ASTU course selection*	3 hours
Beginning ASTU course selection*	3 hours	Elective	3 hours
Total	15 hours	Total	15 hours

Year 3

Semester 1		Semester 2	
ASTU 3000 - Interdisciplinary: Rotating Topics	3 hours	ARTH 4813 - Postmodernism and the Visual Arts 1945–Present	3 hours
Life and Physical Sciences core	3 hours	ASTU 4010 - Professional Practices for the Studio Artist	3 hours
Art History-advanced	3 hours	Life and Physical Sciences core	3 hours
Intermediate Drawing and Painting selection**	3 hours	Intermediate Drawing and Painting selection**	3 hours
Intermediate Drawing and Painting selection**	3 hours	Intermediate Drawing and Painting selection**	3 hours
Total	15 hours	Total	15 hours

Year 4

Semester 1		Semester 2	
ASTU 4200 - Senior Drawing and Painting Studio	3 hours	ASTU 4200 - Senior Drawing and Painting Studio	3 hours
Component Area Option A core	3 hours	Social and Behavioral Sciences core	3 hours
Art Elective	3 hours	Art Elective-advanced	3 hours
Intermediate ASTU selection***	3 hours	Art Elective-advanced	3 hours
Intermediate ASTU selection***	3 hours	Art Elective-advanced	3 hours
Total	15 hours	Total	15 hours

Notes

* See “9 hours from” section above.

** See “12 hours from” section above.

*** See “6 hours from” section above.

Studio Art with a concentration in Metalsmithing and Jewelry, BFA

The metalsmithing and jewelry concentration will shape your future through a concentration that sits at an exciting crossroads between traditional and contemporary art, design and craft practice. It all starts with materials and idea research with outcomes that push the possibilities of silversmithing, blacksmithing and contemporary forms of personal expression in adornment. The concentration in metalsmithing and jewelry is designed to shape investigations through the study of history, theory, technical processes, cutting edge technologies, conceptual strategies, experimentation, professionalism and interdisciplinary possibilities.

Students are supported by passionate and professional faculty and staff at the forefront of their disciplines who promote excellence and who are committed to nurturing and sustaining the development of each student. Outside of the studio, students participate in the student organization, the UNT Metals Club, which sponsors visiting artist workshops, gallery exhibitions, sales and annual travel to conferences and workshops.

Throughout the curriculum, students work in a collaborative and supportive environment with regular access to materials, equipment and library resources related to the study of metalsmithing and jewelry. The studio environment is one where students explore formal and conceptual concerns in jewelry, hollowware and small art objects.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Metalsmithing and Jewelry concentration

- ARTH 4840 - Topics in the History of Crafts
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 4400 - Senior Metalsmithing and Jewelry Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology

6 hours from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II

- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4400 must be taken over two semesters.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Studio Art with a concentration in New Media Art, BFA

New media art is an interdisciplinary and collaborative discipline that focuses on our relationship with technology, visual culture and performance in contemporary art. This practice is rooted in the traditions of avant-garde processes and experimental art making and responds to the rapid pace of technological development.

Students in our concentration work closely with dedicated faculty and technicians to explore diverse methods of making in both the virtual and physical world. Projects challenge tradition and embrace new forms of aesthetic thinking, while all courses emphasize artistic excellence, active learning and socially engaged practices.

Whether it is video, physical computing, performance, immersive installations, sound, sensing devices, mapping, social practice or participatory media, our students integrate the language of art and technology through an integrated and informed critical practice. Outside of the classroom, students participate in the student organization, New Media Cooperative, which cultivates a vibrant cultural community.

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics

- ASTU 4010 - Professional Practices for the Studio Artist

New Media Art concentration

- ARTH 4814 - Theories of Contemporary Art
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 4700 - Senior New Media Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

6 hours from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books

Note

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4700 must be taken over two semesters.

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Studio Art with a concentration in Photography, BFA

Photography students frame their future through the development of visual literacy, critical thinking and creative expression skills. Through lens-based processes students are immersed in their creative, professional, technical and intellectual growth in order to engage in complex, rich and multifaceted approaches to image making.

Our students are supported by accomplished active faculty and staff as well as a multitude of opportunities to interact with internationally acclaimed visiting artists who provide a wide range of views and approaches throughout the course of study. Supplementing the classroom and studio experience, students are connected to internships through our strong network of award-winning alumni (commercial photographers, fine art galleries or other creative professionals) who provide excellent creative and professional opportunities and the student organization, Parallax.

While in the concentration, students are immersed in genres and mediums spanning historic processes, black and white, digital imaging, mixed media, web technology and video. Students leave the concentration empowered through the development of a professional and creative practice, self-discipline, cultural awareness and a personal voice. Throughout the curriculum students have regular access to an up-to-date digital scanning and printing studio, a lighting studio, large darkroom and alternative processes spaces, as well as equipment and library resources related to the study of photography.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Photography concentration

- ARTH 4843 - History of Photography
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 4500 - Senior Photography Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques

- ASTU 3507 - Intermediate Photography: Field Photography

6 hours selected from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design, unless otherwise specified by their degree's major requirements. This requirement includes both course that are completed in residence and those that are transferred to UNT. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4500 must be taken over two semesters.

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Studio Art with a concentration in Printmaking, BFA

Our printmaking concentration supports students in their development of a personal vision and studio practice informed by a rich tradition and ever-expanding approaches to image making. In our carefully maintained printmaking studios students explore intaglio, relief, lithography, screen printing, monotype, letterpress, artist's bookmaking and interdisciplinary processes integrating both handmade and photo/digital matrixes.

Our printmaking faculty are nationally and internationally recognized professional artists who train students with technical skills, instill a sense of conceptual rigor, promote creative research and mentor students for professional development opportunities. Our concentration collaborates with print businesses in the region to offer students industry experience and develop professional networks. The Printmaking Association of North Texas Students (PANTS) organizes exhibitions, community events, field trips, fund raisers, awards, visiting artist events and portfolio exchanges.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Printmaking concentration

- ARTH 4844 - History of Prints
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 4600 - Senior Printmaking Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods

12 hours from

- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books

6 hours from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D

- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4600 must be taken over two semesters.

Minor requirements

No minor is required.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Studio Art with a concentration in Sculpture, BFA

The sculpture concentration supports traditional, experimental and transdisciplinary approaches to studio art practice through broadening students' framework of understanding while increasing their capacity to think beyond convention. From found objects to large-scale public monuments, ancient ceremonial relics to immersive installations, the possibilities made available by such an expansive field are limitless.

Our concentration is led by an active and accomplished faculty and staff who instruct students on and through the technical skills, conceptual strategies, aesthetic presentation and formal issues of sculpture. Supplementing the classroom and studio experience, students are connected to internships and a strong visiting artist and scholar program.

In the studio, students gain technical skills including woodworking, welding, metal fabrication, mold-making, casting, digital fabrication, public art proposals and installation practice. We encourage and direct the development of the individual student through a process of creative inquiry, conceptualization, realization and critique. Students may choose to focus on object making, performance, installation, or public art. Throughout the curriculum students have regular access to excellent facilities, staff, equipment and library resources related to the study of Sculpture.

Program requirements

Pre-major requirements

See Studio Art pre-major requirements.

General degree requirements

Candidates for the Bachelor of Fine Arts Degree with a major in studio art will meet the following requirements:

Hours required and general/college requirements

A minimum of 120 total semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Fine Arts degree as specified under the University Core Curriculum in the Degree and Program Requirements section of this catalog and the College of Visual Arts and Design degree requirements.

Major requirements

Completion of at least 78 hours of arts to include a minimum of 18 hours in a prescribed field and 24 hours of art core (required for all studio majors):

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation
- ART 1900 - Foundations: Systems and Transformations
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ART 2370 - Art History Survey III
- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 4010 - Professional Practices for the Studio Artist

Sculpture concentration

- ARTH 4814 - Theories of Contemporary Art
- ASTU 2801 - Beginning Sculpture: Traditional Methods
- ASTU 2802 - Beginning Sculpture: Digital Methods
- ASTU 4800 - Senior Sculpture Studio (6 hours)
- 3 advanced hours of art history
- 12 hours (9 advanced) of art electives

9 hours from

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2402 - Beginning Jewelry
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2601 - Beginning Printmaking: Relief
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2702 - Beginning New Media: Expanded Practices

12 hours from

- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public

6 hours from

- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3605 - Intermediate Printmaking: Artist's Printed Books
- ASTU 3706 - Intermediate New Media: Artificial Intelligence

Note:

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Additionally, the required 6 credits of ASTU 4800 must be taken over two semesters.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum Requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information, see an academic advisor in the College of Visual Arts and Design Student Academic Advising Office, Art Building, Room 232.

Other requirements

- 24 advanced hours must be completed at UNT.
- 36 hours of art (including at least 12 advanced hours) must be completed at UNT.
- Transfer course work substituted for required UNT art courses must be approved by a student's faculty advisor during the degree audit process.
- A 2.5 grade point average must be maintained in all art courses; only a grade of C (2.0) or better in art courses will count toward degree requirements.

Minors

Photography minor

Studio art minor

A minor in studio art consists of at least 18 hours, including at least 6 advanced hours. At least 9 hours must be completed at UNT.

Photography

- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2502 - Beginning Photography: Photo II

6 hours from

- ART 1600 - Foundations: Perception and Translation
- ART 1700 - Foundations: Space (Physical, Temporal and Virtual)
- ART 1800 - Foundations: Narrative and Representation

6 hours from

- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image

- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography

Note:

For all students seeking a minor in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design—completed in residence or transferred to UNT—to be considered for credit toward a CVAD minor. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Studio Art minor

The Studio Art Minor cultivates creative thinking through hands-on exploration across diverse media, encouraging students to develop innovative approaches to visual problem-solving. Emphasizing adaptive techniques, the program equips students to respond flexibly to new materials, technologies, and conceptual challenges within an evolving cultural landscape. Through studio practice and critical dialogue, students build a versatile skill set that supports creative inquiry across disciplines and professional contexts.

Requirements

2000-level 2D Studio class, 3 hours

Select from:

- ASTU 2201 - Beginning Drawing and Painting: Painting I
- ASTU 2501 - Beginning Photography: Photo I
- ASTU 2601 - Beginning Printmaking: Relief

2000-level 3D Studio class, 3 hours

Select from:

- ASTU 2102 - Beginning Ceramics: Throwing
- ASTU 2402 - Beginning Jewelry
- ASTU 2701 - Beginning New Media: Introduction to New Media Art
- ASTU 2801 - Beginning Sculpture: Traditional Methods

2000-level Studio Art area of interest, 3 hours

Select from:

- ASTU 2101 - Beginning Ceramics: Handbuilding
- ASTU 2202 - Beginning Drawing and Painting: Painting II
- ASTU 2401 - Beginning Metalsmithing
- ASTU 2502 - Beginning Photography: Photo II
- ASTU 2602 - Beginning Printmaking: Screen Printing
- ASTU 2702 - Beginning New Media: Expanded Practices

3000-level studio art class, 9 hours

Select from:

- ASTU 3000 - Interdisciplinary: Rotating Topics
- ASTU 3101 - Intermediate Ceramics: Rotating Topics
- ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation
- ASTU 3103 - Intermediate Ceramics: Form, Function and the Body
- ASTU 3104 - Intermediate Ceramics: Molds and Multiples
- ASTU 3105 - Intermediate Ceramics: Material Studies
- ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics
- ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I
- ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II
- ASTU 3204 - Intermediate Drawing and Painting: Figure Painting
- ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches
- ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series
- ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics
- ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3501 - Intermediate Photography: Rotating Topics
- ASTU 3502 - Intermediate Photography: Darkroom Photography
- ASTU 3503 - Intermediate Photography: Digital Imaging
- ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image
- ASTU 3505 - Intermediate Photography: Alternative Processes
- ASTU 3506 - Intermediate Photography: Lighting Techniques
- ASTU 3507 - Intermediate Photography: Field Photography
- ASTU 3601 - Intermediate Printmaking: Rotating Topics
- ASTU 3602 - Intermediate Printmaking: Intaglio
- ASTU 3603 - Intermediate Printmaking: Lithography
- ASTU 3604 - Intermediate Printmaking: Monotype
- ASTU 3701 - Intermediate New Media: Rotating Topics
- ASTU 3702 - Intermediate New Media: Expanded Cinema
- ASTU 3703 - Intermediate New Media: Creative Coding
- ASTU 3704 - Intermediate New Media: Performance and Electronic Media
- ASTU 3705 - Intermediate New Media: Experimental 3D
- ASTU 3801 - Intermediate Sculpture: Rotating Topics
- ASTU 3802 - Intermediate Sculpture: Multiples and Monuments
- ASTU 3803 - Intermediate Sculpture: Installation Art
- ASTU 3804 - Intermediate Sculpture: Art in Public

Toulouse Graduate School

Main Office
Chestnut Hall, Room 103

Mailing address:
1155 Union Circle #305459
Denton, TX 76203-5017
940-565-4495
Fax: 940-565-2141
E-mail: graduateschool@unt.edu
Web site: https://research.unt.edu/graduate

Faculty

Graduate degrees offered

For listings of graduate degree programs offered at UNT, navigate to the *Graduate Catalog* using the drop-down menu above, and then select "Degrees, certificates, teacher certifications" from the left-hand navigation.

Admission to the Division of Research and Innovation (Toulouse Graduate School)

General admission requirements to the Toulouse Graduate School, specific admission requirements to graduate degree programs, and descriptions of graduate courses are located in the *Graduate Catalog*. Please refer to the *Graduate Catalog* for this information.

Texas Common Course Numbering System (TCCNS)

The Texas Common Course Numbering System (TCCNS) has been designed for the purpose of aiding students in the transfer of general academic courses between colleges and universities through-out Texas. A link to the list of currently approved TCCNS numbers may be found in the left-hand navigation on this page. In course descriptions, TCCNS prefixes and/or numbers, when applicable, are indicated in parentheses immediately following the UNT course number. Information provided is subject to change without notice and does not constitute a contract between UNT and a student or applicant for admission. Prospective transfer students should contact the academic dean's advising office of their intended major for course work guidelines prior to enrollment.

TCCNS	UNT
ACCT 2301	ACCT 2010
ACCT 2302	ACCT 2020
ACCT 2401	ACCT 2010
ACCT 2402	ACCT 2020
ANTH 2101/2301	ANTH 2700
ANTH 2101/2301	BIOL 2700
ANTH 2346	ANTH 1010
ANTH 2351	ANTH 2300
ANTH 2401	ANTH 2700
ANTH 2401	BIOL 2700
ARAB 1411	ARBC 1010
ARAB 1412	ARBC 1020
ARAB 2311	ARBC 2040
ARAB 2312	ARBC 2050
ARTS 1301	ART 1300
ARTS 1303	ART 2350
ARTS 1304	ART 2360
ARTS 1311	ART 1800
ARTS 1312	ART 1700
ARTS 1316	ART 1600
ARTS 1317	ART 1900
ARTS 2316	ASTU 2201
ARTS 2317	ASTU 2202
ARTS 2326	ASTU 2801
ARTS 2333	ASTU 2601
ARTS 2341	ASTU 2402
ARTS 2346	ASTU 2101
ARTS 2347	ASTU 2102
ARTS 2356	ASTU 2501
ARTS 2357	ASTU 2502
ASTR 1103/1303	PHYS 1062
ASTR 1403	PHYS 1062
ASTR 1104/1304	PHYS 1052
ASTR 1404	PHYS 1052
BCIS 1305	BCIS 2610
BCIS 1405	BCIS 2610
BIOL 1106/1107	BIOL 1760
BIOL 1108/1308	BIOL 1112

TCCNS	UNT
BIOL 1306	BIOL 1710
BIOL 1307	BIOL 1720
BIOL 1322	NUTR 1450
BIOL 1406/1407	BIOL 1710 /BIOL 1720/BIOL 1760
BIOL 1408	BIOL 1112
BIOL 2101	BIOL 2311
BIOL 2102	BIOL 2312
BIOL 2106/2306	BIOL 1132
BIOL 2121	BIOL 2042
BIOL 2301	BIOL 2301
BIOL 2302	BIOL 2302
BIOL 2321	BIOL 2041
BIOL 2401	BIOL 2301 /BIOL 2311
BIOL 2402	BIOL 2302/BIOL 2312
BIOL 2406	BIOL 1132
BIOL 2421	BIOL 2041/BIOL 2042
BUSI 1307	FIPL 2770
BUSI 2305	DSCI 2710
CHEM 1111	CHEM 1430
CHEM 1112	CHEM 1440
CHEM 1311	CHEM 1410
CHEM 1312	CHEM 1420
CHEM 1411	CHEM 1410 / CHEM 1430
CHEM 1412	CHEM 1420/ CHEM 1440
CHEM 2323	CHEM 2370
CHEM 2325	CHEM 2380
COMM 1307	JOUR 1210
COMM 2300	JOUR 2250
COMM 2302	JOUR 2300
COMM 2311	JOUR 2310
COMM 2327	ADVG 1000
COMM 2339	MRTS 2010
COSC 1301	CSCE 1010
COSC 1315	CSCE 1020
COSC 1336	CSCE 1030
COSC 1336	CSCE 1035

TCCNS	UNT
COSC 1337	CSCE 1040
COSC 1337	CSCE 1045
COSC 1436	CSCE 1030
COSC 1436	CSCE 1035
COSC 1437	CSCE 1040
COSC 1437	CSCE 1045
COSC 2325	CSCE 2610
COSC 2336	CSCE 2110
COSC 2436	CSCE 2110
COSC 2425	CSCE 2610
CRIJ 1301	CJUS 2100
CRIJ 1310	CJUS 2500
CRIJ 2313	CJUS 2400
CRIJ 2328	CJUS 2300
DRAM 1120	THEA 2095
DRAM 1310	THEA 1340
DRAM 1322	THEA 2351
DRAM 1330	THEA 1046
DRAM 1341	THEA 2380
DRAM 1342	THEA 1043
DRAM 1351	THEA 1050
DRAM 2336	THEA 2051
ECON 2301	ECON 1110
ECON 2302	ECON 1100
ENGL 1301	ENGL 1310
ENGL 1302	ENGL 1320
ENGL 2307	ENGL 2100
ENGL 2311	TECM 2700
ENGL 2321	ENGL 2321
ENGL 2326	ENGL 2326
ENGL 2331	ENGL 2331
ENGL 2341	ENGL 2341
ENGL 2351	ENGL 2351
ENGR 1201	ENGR 1201
ENGR 1204	ENGR 1304
ENGR 1304	ENGR 1304
ENGR 2301	ENGR 2301
ENGR 2302	ENGR 2302
ENGR 2332	ENGR 2332

TCCNS	UNT
ENGR 2401	ENGR 2301
ENGR 2402	ENGR 2302
FREN 1411	FREN 1010
FREN 1412	FREN 1020
FREN 2311	FREN 2040
FREN 2312	FREN 2050
GEOG 1302	GEOG 2170
GEOG 1303	GEOG 1200
GEOL 1101/1301	GEOG 1710
GEOL 1103/1303	GEOL 1610
GEOL 1401	GEOG 1710
GEOL 1403	GEOL 1610
GERM 1411	GERM 1010
GERM 1412	GERM 1020
GERM 2311	GERM 2040
GERM 2312	GERM 2050
GOVT 2305	PSCI 2305
GOVT 2306	PSCI 2306
HECO 1322	NUTR 1450
HIST 1301	HIST 2610
HIST 1302	HIST 2620
HIST 2321	HIST 1050
HIST 2322	HIST 1060
ITAL 1411	ITAL 1010
ITAL 1412	ITAL 1020
ITAL 2311	ITAL 2040
ITAL 2312	ITAL 2050
JAPN 1411	JAPN 1010
JAPN 1412	JAPN 1020
JAPN 2311	JAPN 2040
JAPN 2312	JAPN 2050
KORE 1411	KORE 1010
KORE 1412	KORE 1020
LATI 1411	LATI 1010
LATI 1412	LATI 1020
LATI 2311	LATI 2040
LATI 2312	LATI 2050
MATH 1314	MATH 1100
MATH 1316	MATH 1600
MATH 1324	MATH 1180
MATH 1325	MATH 1190
MATH 1332	MATH 1580
MATH 1342	MATH 1680
MATH 1350	MATH 1350

TCCNS	UNT
MATH 1351	MATH 1351
MATH 1414	MATH 1100
MATH 2305	MATH 2000
MATH 2312	MATH 1650
MATH 2313	MATH 1710
MATH 2314	MATH 1720
MATH 2315	MATH 2730
MATH 2318	MATH 2700
MATH 2412	MATH 1650
MATH 2413	MATH 1710
MATH 2414	MATH 1720
MATH 2415	MATH 2730
MATH 2418	MATH 2700
MUSI 1116	MUTH 1410
MUSI 1117	MUTH 1510
MUSI 1181	MUAG 1011
MUSI 1182	MUAG 1012
MUSI 1183	MUAG 1124
MUSI 1188	MUAG 1117
MUSI 1306	MUMH 2040
MUSI 1307	MUMH 1610
MUSI 1311	MUTH 1400
MUSI 1312	MUTH 1500
MUSI 2116	MUTH 2410
MUSI 2117	MUTH 2510
MUSI 2311	MUTH 2400
MUSI 2312	MUTH 2500
PHED 1304	HLTH 1900
PHIL 1301	PHIL 1050
PHIL 1304	PHIL 2070
PHIL 2303	PHIL 2050
PHIL 2306	PHIL 1400
PHYS 1101	PHYS 1430
PHYS 1102	PHYS 1440
PHYS 1103/1303	PHYS 1062
PHYS 1104/1304	PHYS 1052
PHYS 1110/1310	PHYS 1315
PHYS 1301	PHYS 1410
PHYS 1302	PHYS 1420
PHYS 1401	PHYS 1410 /PHYS 1430
PHYS 1402	PHYS 1420/PHYS 1440
PHYS 1403	PHYS 1062
PHYS 1404	PHYS 1052

TCCNS	UNT
PHYS 1410	PHYS 1315
PHYS 2125	PHYS 1730
PHYS 2126	PHYS 2240
PHYS 2325	PHYS 1710
PHYS 2326	PHYS 2220
PHYS 2425	PHYS 1710 /PHYS 1730
PHYS 2426	PHYS 2220/PHYS 2240
PSYC 2301	PSYC 1630
PSYC 2315	PSYC 2480
PSYC 2317	PSYC 2317
PSYC 2330	PSYC 1650
SGNL 1301	SGNL 1010
SGNL 1302	SGNL 1020
SGNL 1401	SGNL 1010
SGNL 1402	SGNL 1020
SGNL 2301	SGNL 2040
SGNL 2302	SGNL 2050
SOCI 1301	SOCI 1510
SOCI 1306	SOCI 1520
SOCW 2361	SOWK 1450
SOCW 2362	SOWK 2430
SPAN 1411	SPAN 1010
SPAN 1412	SPAN 1020
SPAN 2311	SPAN 2040
SPAN 2312	SPAN 2050
SPCH 1311	COMM 1010
SPCH 1315	COMM 2040
SPCH 1318	COMM 2020
SPCH 2341	COMM 2060
TECA 1303	HDFS 2033
TECA 1318	HLTH 1100
TECA 1354	HDFS 1013

Course Descriptions

Accounting

ACCT 2010 - Accounting Principles I (Financial Accounting)

(ACCT 2301 or ACCT 2401)

3 hours External uses of accounting information; interpretation of accounting data; analysis of financial statements; income and cash flow analysis; nature of assets and liabilities; understanding accounting reporting process.

Prerequisite(s): ECON 1100 (may be taken concurrently); MATH 1100 or higher (MATH 1180 preferred).

May not be taken more than twice at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 2020 - Accounting Principles II (Managerial Accounting)

(ACCT 2302 or ACCT 2402)

3 hours Study of the use of accounting information for business decision making. Topics include cost behavior analysis, cost-volume-profit relationships and the identification of costs relevant to the decision-making process. Students are introduced to various cost system designs, standard costs, variable costing, operational budgeting and decision making in decentralized business.

Prerequisite(s): ACCT 2010 with a grade of C or better; ECON 1100; MATH 1100 or higher (MATH 1180 preferred).

May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a C or better) a course for which this is a prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ACCT 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ACCT 3110 - Intermediate Accounting I

3 hours In-depth study of the process of preparing and presenting financial information about an entity for outside users (Part I). Topics vary but typically include standard setting; the accounting cycle including data accumulation, adjustments and preparation of financial statements; and valuation. There is a focus on the recognition, measurement and disclosure of revenue; inventory and cost of sales; and plant assets.

Prerequisite(s): Junior level entrance exam with a passing grade of 70 percent or higher; ACCT 2010 and ACCT 2020 with a grade of C or better; FINA 3770 (may be taken concurrently) with a grade of C or better.

May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a grade of C or better) a course for which this is a prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 3120 - Intermediate Accounting II

3 hours In-depth study of the process of preparing and presenting financial information about an entity for outside users (Part II). Topics vary but typically include analysis of recognition, measurement and disclosure of: equity investments, financing activities (bonded debt, leases, pensions), income taxes, stockholders' equity, specialized reporting problems and cash flow.

Prerequisite(s): ACCT 3110 and ACCT 3405, both with a grade of C or better; FINA 3770 ; ACCT 3405 (may be taken concurrently).

May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a grade of C or better) a course for which this is a prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 3270 - Cost Accounting

3 hours Accounting in manufacturing operations; cost concepts and classifications; cost accounting cycle; accounting for materials, labor and burden; process cost accounting; budgeting; standard costs; cost reports; direct costing and differential cost analysis.

Prerequisite(s): ACCT 2010 and ACCT 2020 with grades of C or better; ECON 1100 and ECON 1110; BCIS 2610; and MATH 1190 or MATH 1710.

May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a grade of C or better) a course for which this is a prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 3405 - Professional Development

1 hour Enables students to develop knowledge, skills and attitudes necessary to function effectively and succeed in the business world. Topics vary but typically include dressing for success, confidence and motivation, self-assessment, handling conflict and stress, personal and business ethics, dining etiquette, resume writing, professional certification opportunities, job search and interviewing, and the necessity for continuous self-improvement. In addition to faculty instruction, topics are covered by using former students and other guest lecturers from business, industry and government to expose students to career enhancing opportunities and to provide valuable insights from first-hand experiences.

May not be taken more than twice at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class standing; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ACCT 4100 - Accounting Systems

3 hours Introduction to technology/accounting information systems and their interface with business processes, internal controls and database management systems. Emphasis on maintaining and auditing system security and integrity. Practical experience with a commercial accounting package and database management software.

Prerequisite(s): ACCT 3110 with a grade of C or better.

May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a grade of C or better) a course for which this is a prerequisite. (This course may be taken during the junior year.)

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4140 - Advanced and Not-for-Profit Accounting Principles

3 hours Problems connected with income determination and equity accounting, and consolidated statements. Problems connected with accounting for Not-for-Profit entities.

Prerequisite(s): ACCT 3120 with a grade of C or better.

May not be taken more than twice at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4200 - Accounting Ethics and Corporate Governance

3 hours Examines accounting ethics from both a philosophical and business perspective. Ethical reasoning, moral character, and moral decision-making will provide a framework for examining the importance of ethics in one's personal life and professional career. The course explores the decision-making process by which one determines what is right and wrong, and how those decisions affect a person's character. It also discusses integrity and how such integrity can affect one's long-term career objectives. Additionally, the course will explore corporate governance and the direction of business entities in establishing a sound governance framework. One segment of the course examines the Codes of Professional Conduct issued by companies and professional organizations, with emphasis on the American Institute of Certified Public Accountants, the Texas State Board of Public Accountancy, and regulators of the accounting profession such as the SEC and PCAOB.

Prerequisite(s): ACCT 3120.

Typically Offered: Fall and Spring

ACCT 4300 - Federal Income Taxation

3 hours Comprehensive introduction to the U.S. federal income tax system. Emphasizes the taxation of individuals but many topics also apply to business entities. Coverage includes technical tax rules and motivations behind these rules, as well as tax planning opportunities and limitations.

Prerequisite(s): ACCT 2010 and ACCT 2020 and ACCT 3110 with grades of C or better.

May not be taken more than twice at UNT. (This course may be taken during the junior year.)

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4320 - Federal Income Taxation II

3 hours This course is designed to build on the fundamental tax concepts introduced in Federal Income Tax I (ACCT 4300). This course will provide a broad overview of how the Internal Revenue Code taxes corporations and partnerships and cover the basics of calculating the income tax provision.

Prerequisite(s): ACCT 4300 with a grade of C or better.

Recommended: May not be taken more than twice at UNT. Students may not retake this course once they have completed (with a C or better) a course for which this is a prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4400 - Auditing — Professional Responsibilities

3 hours Introduction to auditing and the professional responsibilities of a career in any specialty of the accounting profession. Topics include the legal and ethical responsibilities of accountants; professional auditing standards; the acquisition, evaluation and documentation of audit evidence; reports on the results of the engagement.

Prerequisite(s): ACCT 3120 and ACCT 4100, both with a grade of C or better, and BLAW 3430.

May not be taken more than twice at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4430 - Accounting Research and Data Analysis

3 hours In today's digital age, accounting professionals are increasingly relying on research to extract meaningful insights, detect patterns, and make informed financial decisions. Course equips students with the knowledge and practical skills required to address research questions in the field of accounting from two perspectives: 1) applying analytics techniques to big data and 2) identifying appropriate accounting treatments through authoritative literature. Through hands-on exercises, case studies, and real-world applications, students navigate authoritative sources and leverage data to enhance financial reporting, auditing, and decision support.

Prerequisite(s): ACCT 3120 and ACCT 4100 with grades of C or better in both courses.

This course may not be taken more than twice. Students may not retake this course once they have completed (with a grade of C or better) a course for which this is the prerequisite.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ACCT 4800 - Internship

3 hours Supervised work in a job relative to student's career objective.

Prerequisite(s): Student must meet the employer's requirements and have consent of the professional program director.

May be repeated, but only 3 hours may apply toward degree program credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)
Typically Offered: Fall, Spring and Summer

ACCT 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Addiction Studies

ADDS 3975 - Addictions

3 hours Examines the biological, social-developmental and psychological impact of substance use and behavioral-process addiction and its relationship to individual and family functioning. Investigates the relationship between substance use and chronic stress, trauma and psychological health. Reviews current treatment methods and settings for substance use disorders in addition to current and historical social-political issues related to substance use and legislation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4075 - Drugs and Alcohol

3 hours Covers the psychological, biological and behavioral effects of substance use and addiction with particular focus on the impact of alcohol, cannabis, nicotine, opiates, stimulants, depressants and hallucinogens on mind, body and behavior.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4175 - Addiction Treatment Models

3 hours Provides an overview of treatment strategies used in the treatment of alcohol/drug use and dependence. Examines basic chemical dependency treatment service delivery systems within the context of alcohol and other drug use counseling theory.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4275 - Alcohol, Drugs and Disability

3 hours Examines the biological, psychological and systemic nature of substance use and addiction, their overlap with other mental and physical disabilities, and relationship to the process of rehabilitation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4375 - Addiction Counseling and Groups

3 hours Principles and practice for the most common form of addictions treatment offered today. Explores methods of dealing with substance use disorder issues in a group and offers opportunities to apply skills in class setting.

Prerequisite(s): ADDS 4175.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4575 - Current Issues in Substance Use Disorders

3 hours Current issues in substance use disorders are explored using various types of research reports and other professional literature. These sources are used to help students understand the role of research in developing programs, formulating policies and evaluating one's practice. Students become critical consumers of professional literature as they develop specialized expertise on specific problems, groups or practices used in treating addictions and substance use disorders.

May be repeated once as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4675 - Addictions Counseling Competencies

3 hours Focuses on familiarizing students with the core competencies necessary for effective interventions within addiction treatment settings and prepares students to apply these skills in alcohol and other drug abuse (AODA) counseling practice.

Prerequisite(s): ADDS 4175.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4775 - Ethical and Professional Issues in Addiction Practices

3 hours Examines principles, ethics, legal issues and professionalism in the addiction field and introduce students to professional readiness skills. Focuses on the importance of self-awareness, obligations to ethical and behavioral standards in helping relationships, and the application to practice of prior course content throughout the major. Also explores the history of the addiction profession and provide guidance for career readiness.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4881 - Addictions Practicum

6 hours (3;0;0) Practical experience in a supervised chemical dependency setting aimed at the integration of theory and practice and refinement of substance use treatment counseling skills. Requires completion of a minimum of 300 clock hours within the practicum setting plus attendance at weekly integrative seminars.

Prerequisite(s): Completion of 18 hours of addiction course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ADDS 4900 - Special Problems in Addiction Studies

3 hours This is an individualized special topics course which allows students to work in depth on a project related to addiction studies.

Prerequisite(s): Consent of department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Advanced Data Analytics

ADTA 4130 - Data Analytics and Computational Statistics 1

3 hours Provides an overview of quantitative methods essential for analyzing data, with an emphasis on science and industry applications. Topics include identification of appropriate metrics and measurement methods, descriptive and inferential statistics, experimental design, parametric and non-parametric tests, simulation, and linear and logistic regression, categorical data analysis, and select unsupervised learning techniques. Standard and open source statistical packages are used to apply techniques to real-world problems.

Prerequisite(s): MATH 1100 or MATH 1680 or equivalent, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $24.70 (instructional), $7.75 (differential)

ADTA 4230 - Data Analytics and Computational Statistics 2

3 hours Contemporary techniques of multivariate analysis, including association rules, classification methods, time series, text analysis and machine learning methods with an emphasis on applications in science and industry. Introduction to state-of-practice computational statistical and data analysis methods and tools.

Prerequisite(s): ADTA 4130, STAT 3680 or equivalent, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $24.70 (instructional), $7.75 (differential)

ADTA 4240 - Principles of Data Structures, Harvesting and Wrangling

3 hours Introduction to collecting, wrangling, storing, managing, retrieving and processing datasets. Topics include fundamental concepts and techniques of data engineering, large-scale data harvesting, data wrangling methodologies, and storage and process architectures. Emphasizes applications and includes many hands-on projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $24.70 (instructional), $7.75 (differential)

ADTA 4250 - Principles of Data Visualization for Large Data

3 hours Principles and methods for effective visualization and communication of large data sets. Standard and open source data visualization packages are used to develop presentations that convey findings, answer science and industry questions, drive decisions, and provide persuasive evidence supported by data.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $24.70 (instructional), $7.75 (differential)

ADTA 4340 - Methods for Discovery and Learning from Data

3 hours Introduction to contemporary methods for discovery and learning from data sets. Emphasizes applications of predictive and pattern recognition techniques in deriving insights and making decisions in business and science contexts. Topics complemented by hands-on projects using data discovery and statistical learning software.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $24.70 (instructional), $7.75 (differential)

Advertising

ADVG 1000 - Principles of Advertising and Brand Strategy

(COMM 2327)

3 hours A survey of advertising and brand communication practices, including terminology, history, economic functions, composition, ethical practices, representation, authenticity, agency structure, professional roles, tools and industry equity.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 1100 - Applied Design for Advertising and Public Relations

3 hours Incorporates lectures and hands-on demonstrations. Students learn and apply the fundamentals of core software applications used in the advertising and public relations industries. Lectures also cover an appreciation of graphic design, typography and other principles used in advertising and public relations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

ADVG 2000 - Digital Advertising Tools and Analytics

3 hours Survey of display, search, video and other advertising tools used across digital and social media. Hands-on development of evaluation techniques including analytics and dashboards to optimize digital and social campaigns.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 2100 - Inclusive Advertising

3 hours Exploration of diverse cultures, lifestyles, perspectives, and experiences through the context of multicultural and global advertising campaigns. Develop and analyze primary and secondary consumer insights to produce authentic and equitable messages; practice giving feedback and initiating challenging conversations about ad work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 3000 - Copywriting for Brands

3 hours Intensive writing for brands. Examine, develop, and apply brand voice through workshop exercises for social and digital media, influencer and production scripts, blog entries, taglines, headlines, supporting copy, sponsored content, and internal branding. Develop skills by pitching work to clients and giving and receiving constructive critiques.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2100; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

ADVG 3010 - People-Centered Copywriting

3 hours Analyze language and themes used across cultures, values, and perspectives. Create empathetic advertising copy through rigorous written exercises. Develop skills by pitching work to clients and giving and receiving constructive critiques.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2100; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 3100 - Advertising Art Direction for Brands

3 hours

Hands-on advertising art direction course. Develop advertising brand identity through imagery, including logos, icons, typefaces and color schemes. Advertising industry tools are used to create visualizations of brands and evolve existing brands. Develop skills by pitching work to clients and giving and receiving constructive critiques.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 1100 or ART 3030; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

ADVG 3110 - Representation Through Advertising Art Direction

3 hours Hands-on advertising art direction course. A study of ethics in advertising art direction decisions; how advertising imagery shapes society including model selection, stereotypes, and bias. Implement advertising industry tools to create equitable campaigns that reflect important shifts in industry practices. Develop skills by pitching work to clients and giving and receiving constructive critiques.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 1100 or ART 3030; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 3120 - Advertising Video Production

3 hours Creative video production and editing for advertising including storytelling ranging from short-form ads through full-length brand films. Creating imaginative and artistic video with an emphasis on integrated brand promotion and commercial production for brands and clients.

Prerequisite(s): ADVG 1000, ADVG 1100, ADVG 2000, ADVG 2100, and JOUR 3300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 3200 - Advertising Account Management

3 hours Covers all aspects of the organization, supervision and management of advertising agency operations in both advertising and marketing agencies as well as client organizations. Account executives lead client relations, internal/intra-agency relations, project supervision, workflow, traffic, presentations, business development, campaign coordination and project evaluation.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2000; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

ADVG 3220 - Social Media Client Partnerships

3 hours

Examines social media through the lens of paid, branded partnerships. Emphasis on account management and media buying roles. Explores law and ethics, pursuing account acquisition, media strategy, online content management, and campaign analytics for social media.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2000; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 3300 - Advertising Strategy and Insights

3 hours Strategists collect and analyze consumer insights to form effective campaign concepts. A focus on creating authentic advertisements while employing principles of brand positioning, creative inquiry, and strategic thinking. Emphasis on interviews, focus groups, surveys, and interpreting market data.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2100; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

ADVG 3310 - Advertising Research and Campaign Evaluation

3 hours Review, interpret, and apply advertising research and analytics to create more effective brand messages across platforms.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2100; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 3400 - Experiential Advertising and Brand Activations

3 hours Studies of branded events and activations that employ smart technology including VR and AR, in-store experiences, pop-up shops, museums, and virtual exhibits. Implement design thinking and principles of omnichannel communication to determine how paid, branded experiences create earned media opportunities across other platforms.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000 or ART 3030; ADVG 2000; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

ADVG 3500 - Advertising Media Buying and Planning

3 hours Print, broadcast and web time-buying procedures important to media buyers and media salespeople. Assignments in audience research, identifying media that reach target audiences and using effective media mixes. Also includes development and presentation of media plans.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2000; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 3510 - Programmatic and Tailored Advertising

3 hours

Using technology to select, buy and place advertisements. Covers timely digital advertising developments often questioned by clients such as blockchains, cryptocurrency, click fraud and privacy issues.

Prerequisite(s): Completion of ENGL 1310 and ENGL 1320 or TECM 1700 and TECM 2700; ADVG 1000, ADVG 2000; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

ADVG 4000 - Advanced Advertising Art Direction Workshop

3 hours Intensive, hands-on advertising art direction course. Advertising content created for real-world clients, in conjunction

with an agency. Develop skills by pitching work to clients and giving and receiving constructive critiques.

Prerequisite(s): ADVG majors or minors who have successfully taken ADVG 1000, ADVG 1100, ADVG 2000, ADVG 2100, ADVG 3100 and ADVG 3110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

ADVG 4100 - Advertising Creative Collective and Freelancing

3 hours Develop special, student-selected projects to prepare for advertising work outside a traditional agency setting. Support rigorous applications to advertising awards and leadership programs.

Prerequisite(s): ADVG majors who have successfully completed all foundation, professional track and interdisciplinary course requirements or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 4200 - Advertising Career Advancement

2 hours Hones skills needed for job seeking including personal branding, resume design, business communication, working with clients, persuasive pitching, salary negotiation, collaboration, team management, imposter syndrome, burnout, mental health, equitable hiring and pathways to leadership.

Prerequisite(s): ADVG majors who have successfully completed all foundation, professional track and interdisciplinary course requirements.

Corequisite(s): Either ADVG 4800 or JOUR 4805 or ADVG 4815.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 4300 - Advertising Full-Service Campaigns

3 hours Mirrors the roles of the advertising agency in developing a strategic advertising plan and creating a complete campaign for real clients. Brings together skills and knowledge from all previous advertising courses and results in a comprehensive plansbook and professional presentation of the campaign to the client.

Prerequisite(s): Advertising major status and successful completion of ADVG 1000, ADVG 1100, ADVG 2000, ADVG 2100, 12 hours of Professional Track courses and 9 hours of Interdisciplinary courses. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

ADVG 4400 - Advertising Campaigns Competition

3 hours Intensive immersion in advertising campaign planning, with focus on developing an integrated communications campaign for a national client as part of an organization such as the National Student Advertising Competition. Students create, develop and execute a campaign including a comprehensive plansbook and competitive client presentation.

Prerequisite(s): Advertising major status and successful completion of ADVG 1000, ADVG 1100, ADVG 2000, and ADVG 2100, 12 hours of Professional Track courses and 9 hours of Interdisciplinary courses. Requires application. Consent of school.

May be repeated for credit for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

ADVG 4800 - Professional Internship

1–3 hours Practical experience through employment under the supervision of advertising faculty and professionals at the work site. Internship and total work and credit hours to be completed must be arranged in advance of enrollment by application to the school. For each hour of credit, student must work a minimum of 100 hours.

Prerequisite(s): ADVG majors who have successfully completed all foundation, professional track and interdisciplinary course requirements.

Corequisite(s): ADVG 4200.

May be repeated for credit; however, no more than 3 hours of total credit for ADVG 4800 and JOUR 4805 or ADVG 4815 may be applied to the advertising degree requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered:

ADVG 4815 - SWOOP Agency Practicum

1–3 hours Supervised intensive practical experience for advertising and public relations students while working in on-campus student advertising and PR agency. Includes agency experience from working directly with clients to development and execution of advertising messages and PR communication for a variety of media. For each hour of credit, student must work a minimum of 100 hours.

Prerequisite(s): Advertising major status and successful completion of ADVG 1000, ADVG 1100, ADVG 2000, ADVG 2100, 12 hours of Professional Track courses and 9 hours of Interdisciplinary courses. By application only. Consent of school.

May be repeated for credit up to a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

Aerospace Studies

AERO 1030 - USAF Heritage and Values

3 hours (2;2;1) Introduction to the Air Force way of life providing a historical perspective on war and US military, AF operations, principles of war, and airpower.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 1040 - USAF Heritage and Values

3 hours (2;2;1) Introduction to the Air Force way of life providing a historical perspective on war and US military, AF operations, principles of war, and airpower.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 2030 - Team and Leadership Fundamentals

3 hours (2;2;1) Provides a fundamental understanding of both leadership and team building and the many layers and aspects of leadership. Includes team building activities and conflict management and an assessment of communication skills.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 2040 - Team and Leadership Fundamentals

3 hours (2;2;1) Provides a fundamental understanding of both leadership and team building and the many layers and aspects of leadership. Includes team building activities and conflict management and an assessment of communication skills.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 3310 - Leading People and Effective Communication

4 hours (3;1;1) In depth study of leadership and ethics including writing and briefing skills.

Prerequisite(s): AERO 2030 and AERO 2040

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 3320 - Leading People and Effective Communication

4 hours (3;1;1) In depth study of leadership and ethics including writing and briefing skills

Prerequisite(s): AERO 3310.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 4310 - National Security Affairs/Preparation for Active Duty

4 hours (3;1;1) Examines the basic elements of national security policy and process; teaches basic air force domain operations as well as selected roles of the military in society and current domestic and international issues affecting the military profession. Covers the responsibility, authority, and functions of an Air Force commander and selected provisions of the military justice system. Special topics of interest focus on the military as a profession, officership, preparation for active duty, and current issues affecting the military.

Prerequisite(s): AERO 3310, AERO 3320.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

AERO 4320 - National Security Affairs/Preparation for Active Duty

4 hours (3;1;1) Examines the basic elements of national security policy and process; teaches basic air force domain operations as well as selected roles of the military in society and current domestic and international issues affecting the military profession. Covers the responsibility, authority, and functions of an Air Force commander and selected provisions of the military justice system. Special topics of interest focus on the military as a profession, officership, preparation for active duty, and current issues affecting the military.

Prerequisite(s): AERO 3310, AERO 3320, AERO 4310.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

American Sign Language

SGNL 1010 - American Sign Language I

(SGNL 1301 or SGNL 1401)

3 hours Introduction to American Sign Language. Development of a beginning vocabulary of approximately 600-plus signs. Principles of linguistics and grammatical structures. History and current trends of ASL. Development of basic expressive skills using the manual alphabet, numbers and signs.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SGNL 1020 - American Sign Language II

(SGNL 1302 or SGNL 1402)

3 hours Expansion of basic vocabulary to approximately 1200-plus signs. Practical application of the linguistics and grammar of ASL. Introduction to deaf culture. Development of expressive fluency in finger-spelling and signing. Primary focus upon receptive recognition and comprehension of simple situational conversations in ASL.

Prerequisite(s): SGNL 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SGNL 2040 - American Sign Language III

(SGNL 2301)

3 hours Expansion of vocabulary to approximately 1800-plus signs. Provide and receive natural conversational information in ASL in a variety of contextual settings. Exposure to deaf community events and interaction with deaf adults.

Prerequisite(s): SGNL 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SGNL 2050 - American Sign Language IV

(SGNL 2302)

3 hours Development of receptive and expressive vocabulary to approximately 2400-plus signs. Spontaneous utilization of ASL at conversational rates with fluent signers. Translation of ASL idiomatic expressions into English. Signing of English idioms into conceptually based ASL. The deaf perspective of bilingual and bi-cultural issues.

Prerequisite(s): SGNL 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

Anthropology

ANTH 1010 - Introduction to Anthropology

(ANTH 2346)

3 hours Surveys and explains the cultural, linguistic and biological legacy of humankind, from antiquity to the present, using the research tools of anthropology. Anthropology is both a scientific and humanistic endeavor that attempts to explain the differences and similarities between and among human groups. Anthropology studies where people come from, who they are, what they do, and why they do it.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 1150 - World Cultures Through Film

3 hours Through the use of ethnographic and documentary film, as well as lecture/discussion, this web-based course illustrates the life ways, values and beliefs of human societies throughout the world. This survey includes examples from native North America, Latin America, Australia, Southeast Asia, Africa, East Asia, Melanesia, Polynesia, modern North America and Europe.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 2300 - Culture and Society

(ANTH 2351)

3 hours Cultural anthropology is the social science that tries to make sense out of people's lifestyles around the world, encompassing many subjects such as law, religion, politics, health, language, economics and globalization. It involves analyzing human ways of life with holistic, comparative, global, and relativistic perspective. As we compare and contrast different cultures around the world, we just as often analyze ourselves.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 2400 - AnthroPop: Symbolic Anthropology and the Artistry of Popular Culture

3 hours Engaging the medium of "fan-art" as a discursive platform for re-imagining everyday realities through the lens of symbolic anthropology. Focus on global franchises and contemporary trends inclusive of fantasy literature, film, gaming, and genres as platforms through which "fanartists" use the grammar of "fiction" to curate and negotiate cultural "realities."

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 2700 - Human Variation: Biological Anthropology, Evolution, and Forensics

(ANTH 2401 or ANTH 2101/ANTH 2301)

3 hours (3;2) Study of human biological evolution from primate beginnings to the present era. Emphasis is placed upon anatomical and physiological variations and their adaptive significance.

Same as BIOL 2700.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3101 - Issues in Contemporary American Culture and Society

3 hours Shifting American cultural values, emergent and contested identities, and complex social institutions undergird some of the most significant social issues in America today. Oriented around the core concept of culture and cultural groups, the course is designed to introduce anthropological frameworks for understanding cultural diversity, and to develop critical thinking skills for identifying, describing and explaining the social complexities of American (U.S.) culture. Ethnographic case studies combine with current events to orient the intricacies of cultural diversity, while discussion and critical reflection raise awareness and broaden perspectives of lives and livelihoods in the United States. Special time and attention are devoted to both mainstream and subcultural identities in this pluralist, secular, nation-state culture.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3110 - Indigenous Peoples of North America

3 hours Examines the common stereotypes and media (mis) interpretations of Indigenous peoples and cultures in order to see beyond such one-dimensional portrayals of the American Indian. Introduction to a number of important themes in the history of Native American peoples over the last 500 years, including colonization, culture change and sovereignty. Students gain a sense of the richness and diversity of Native American culture and experience.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3120 - Indigenous Cultures of the Southwest

3 hours The cultural history of the Native American populations in the Greater Southwest from prehistoric times to the present, with an emphasis on current cultural, political and environmental issues. Topics include prehistoric settlement, culture contact, colonialism, cultural identity, intertribal politics, economic development, health issues, indigenous revitalization and sovereignty movements, cultural resource management and tourism. Particular attention is given to the influences of Spanish and American political, military and economic forces, and to the relationship between the Southwest Indians and anthropologists.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3130 - African-American Anthropology

3 hours Develops a “double consciousness” of knowledge of African-American (or Black) culture in the United States, the impact of Black people on mainstream American culture, and vice versa. Covers the role of U.S. history, politics and economics as having shaped and been shaped by the presence of people of African descent on this continent and in this hemisphere, including historical roots, classic literature, religion, social structural aspects of African-American culture, oral traditions, identity and representation.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3140 - Latinos in the U.S.

3 hours Uses identity and resistance theories to explore the various constructions of Latin@ race, ethnicity and identity, and the social and political implications of being Latin@ today. Explores the ways in which Latin@s have been excluded from the national imaginary while maintaining and transforming their own cultural identify. How this process of marginalization has deeply changed the racial and cultural landscape for Latin@s and non-Latin@s.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3200 - Latin America

3 hours The Indigenous, colonial and mestizo cultures of Latin America from prehistoric, historic and contemporary perspectives. The dominant culture groups that have comprised this region, and specific issues of conquest and colonialism, neocolonialism, the role of religion, peasants and social movements; and migration.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3210 - Meso America

3 hours The Indigenous, colonial and mestizaje cultures of Middle America from prehistoric to contemporary times. Beginning with the peopling of the Americas and concluding with a review of current issues and politics, students explore the dominant culture groups that have comprised this region, and specific issues of colonialism, imperialism, neocolonialism, syncretized Catholicism, peasant rebellions, migration and globalization.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3220 - Mayan Culture

3 hours Holistic understanding of the ancient Mayan civilization, illuminating crucial economic, political and ideological contemporary processes; exploring the intriguing symbolism embedded in the ancient Maya culture; understanding colonial and current Mayan rebellions.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3300 - Peoples and Cultures of the Pacific

3 hours Surveys the diverse cultures and traditions of the Pacific, each with its own unique style and history covering thousands of years. Geography, politics, history, ethnography and economics of many cultural groups in the region, from the discovery of these islands to the present.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3400 - Peoples and Cultures of Africa

3 hours The diversity of African people and culture through a variety of sources—ethnographies, films, literature and narratives. The reality of life in contemporary Africa as well as the way it has been portrayed by anthropologists, explorers, historians and the media. Looks in detail at the continent’s rich geography, environment, history, politics, religion, economics and ethnicities, as well as the challenges that current events in Africa pose for the rest of the world.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3500 - Cultures and Civilizations of the Middle East

3 hours The prehistory, history and contemporary situation of one of the most unusual areas of cultural diversity and human adaptation in the world. Special attention is given to the colonial and religious history of the area that underlies much of its current problems. Its unique role in the developing world economic system is addressed, as well as those current phenomena that make it such a volatile area.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3600 - Peoples and Cultures of Europe

3 hours Investigation of the myriad peoples of Europe within the context of the impact of broader trends and institutional frameworks. Micro- and macro-level analyses are used to understand a wide range of issues of both historical and contemporary importance.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3700 - Peoples and Cultures of South Asia

3 hours A survey of the culturally rich and diverse cultures and traditions of South Asia, each with its own unique history covering thousands of years. From the days of prehistory to the present period of profound social, economic, political and technological changes, this course provides an in-depth background and understanding of the peoples and cultures of this area.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3710 - Peoples and Cultures of East Asia

3 hours Overview of cultures and contemporary issues in societies in the Far East, in the context of social and political change and development. Anthropological and ethnographic studies, supplemented by selected research from sociology, history and political science, and specific areas of cultural and social change in each society, including kinship and family, ethnicity, economic and political development, industrialization, urbanization, and health and social policy.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3720 - Peoples and Cultures of Southeast Asia

3 hours Survey of mainland and insular areas of Southeast Asia. Development of Indigenous cultures, the period of empires influenced by India and China, the merger with the Islamic world, Western colonialism and emerging nationalism, and the modern period of seeking its global identity.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3900 - Special Topics in Area Studies

3 hours Designed to develop greater understanding, awareness, appreciation and sensitivity to global diversity; the prehistory, history, social and cultural adaptations and practices of various cultural groups according to major geographical regions; the relationship among the various systems of culture; and the interconnectedness of peoples throughout the world. Among the cultural areas offered are Circumpolar Region, Eastern Europe, the Great Civilizations of Mexico, Australia, etc.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4000 - Applied Anthropology

3 hours Development, theory, methods and approaches of applied anthropology. Through case materials, the course examines both the current and historical roles and contributions of the various subfields in the application of anthropology to the problems of culture. Special attention is directed at developing some understanding and appreciation of the problems and ethics involved in applied or practical activities and to developing the necessary skills and methods for assuming such a role as an applied anthropologist.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4011 - Anthropological Field Methods

3 hours For Anthropology majors only. Engages with the methods of anthropological thinking and how anthropologists "do" anthropology. Highlights how the ethnographer/informant relationship informs how questions over "culture" are both found and framed. Focuses on ethnographic data collection and methods of analysis.

Prerequisite(s): ANTH major status, ANTH 2300, and have completed at least 60 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4021 - Development of Anthropological Thought

3 hours Overview of the history of anthropological thought from its origins to the contemporary schools of anthropology, with emphasis on the scientific, intellectual and sociopolitical causes and consequences of changes in major conceptual orientations to man and culture.

Prerequisite(s): ANTH 2300.

Recommended: Recommended that student have upper level standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4060 - Community Engagement through Action Research

3 hours Focuses on various approaches to action research by engaging the community as experts and active collaborators and by thinking about and doing anthropology differently. Action oriented learning and research to create social change attempting to democratize the process of research and the relationships between the university and community.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4110 - Design Anthropology

3 hours Students learn the fundamentals of this field. By collaborating on an applied project, they gain practice in the research methods of participant observation, interviewing, and videotaping. Students learn to engage in collaborative analysis using qualitative software and work with designers and customers to translate their research into practical applications.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4130 - Anthropology of Non-Governmental Organizations

3 hours Utilizes an anthropological lens to understand the organizational culture of non-governmental organizations (NGOs) and NGO development in Western and non-Western spheres, with emphasis on their impacts in local and global, neoliberal contexts. Examines diverse and sometimes divergent principles, policies, and practices guiding human rights efforts, humanitarian aid, environmental activism, and cultural heritage.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4200 - Health, Healing and Culture: Medical Anthropology

3 hours Contemporary medical anthropology, with a focus on the biocultural basis of health and global sociocultural variations in illness and healing. Study of comparative health systems, political-economic and ethical issues in health and care, health professions, and patients' views of illness, and cross-cultural definitions and understandings of disease, illness and cure.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4210 - Culture and Human Sexuality

3 hours Examines sexualities cross-culturally in their specific historical, social, religious and political contexts to explore how that seemingly most natural aspect of humanity — sex — is structured and experienced very differently across the globe. A primary focus is how sex and sexuality are discursively constructed as a matter of utmost privacy, yet are paradoxically a matter of deep public concern. Examines the intimate connection between sex and the nation by exploring topics such as family planning policies, anti-sodomy laws, and laws against interracial marriages.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4220 - Anthropology in Public Health

3 hours Introduction to the contributions of anthropology in public health. Sociocultural perspective on the fundamentals of public health, including but not limited to international health, domestic health, epidemiology, infectious disease, child survival, women's and men's health, and health policy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4230 - Psychological Anthropology

3 hours Explores the relationship between the self, culture and society. Compares concepts of self, socialization and behavior in anthropological and psychological theory and research, universal concepts of human nature, and examines processes of interpretation by individuals in diverse cultural and social groups over the life span. Sociocultural contexts of alternative states of consciousness and mental illness are also compared.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4300 - Migrants and Refugees

3 hours Anthropological understanding of "uprooted" and displaced social groups who leave their country and culture. Worldwide political, economic and social issues are analyzed, as are the processes of accommodation, adaptation and re-creation of their cultural systems in different socioeconomic and political contexts. Beginning with general characteristics of the anthropological discussion on "displacement", the course then ventures into different models for the analysis and understanding of migration and refugee movements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4310 - Citizenship, Borders and Belonging in the United States

3 hours Focuses on migration to and citizenship in the United States and how intersecting cultural hierarchies of race, class, gender, sexuality, nationality, and more shape the drawing of lines between insider and outsider; marking which bodies can belong to the United States as a citizen, and those that cannot. Critical analysis of macro-level immigration processes, structures, and concepts and a deeper understanding of micro-level, lived experiences of migrants and their communities in the United States.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4320 - Contemporary Middle East: Society, Culture and Politics

3 hours Explores the emergence of the modern Middle Eastern societies from their traditional and early modern origins in "Gunpowder Empires" and Middle Eastern encounters with "modernity," Colonial powers, and the contested native postures toward them.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4400 - Environmental Anthropology

3 hours Focuses on major environmental questions, theories, problems, issues and possible solutions illustrated by case studies from different parts of the world. Examines environmental issues pertaining to land, sea and natural resources; food production systems; deforestation; population problems; poverty and environmental justice; natural hazards and risks; resource conflicts and warfare; over-fishing; economic development; mineral and oil extraction; landscapes; and biodiversity conservation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4450 - Advocacy, Power, and Politics: The Anthropology of Policy

3 hours Anthropological approach to understanding policy and political processes. Applied approaches to understanding and evaluating power and interpreting legislation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4500 - Language and Culture

3 hours Introduction to linguistic anthropology, designed to acquaint students with some of the ways in which languages and cultures are connected to each other, in that communication patterns are culturally structured. Three broad areas: how language offers resources to individuals to help them accomplish their goals; how language offers resources to institutions and social groups that help them maintain their power; and how language shapes our thought patterns. Students learn the basic techniques of analyzing conversations by working on a semester-long project.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4510 - Anthropology of Virtual Communication

3 hours How anthropologists approach the study of virtual communication; exploration of virtual communication practices in different cultural contexts; how virtual communication can be a resource for social processes ranging from political activism to gaming.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4520 - Food, Culture and Globalization

3 hours Critically analyzes the multiple and complex relationships amongst food, culture, and processes of globalization focusing on issues of food and power to identify and problematize the institutions, processes, and beliefs that inform our relationship to food in the United States.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4550 - Race, Ethnicity and Identity

3 hours How race, ethnicity and identity operate as categories of social inequality. Draws on critical perspectives of race and ethnicity to analyze how they work as overlapping categories of both inclusion and exclusion that are used to divide, rank and discriminate. Discussion of possible ways to overturn the social injustices caused by ethnic and racial subordination as currently experienced in the U.S.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4601 - Anthropology of Education

3 hours Issues and approaches relevant to the study of education within the field of anthropology, including methods used in the study of education and schooling, and the significance of cultural transmission. Students are exposed to works in the field of anthropology about cultural difference, minority status and learning. Highlights new perspectives and critiques related to contemporary educational problems found in societies such as the U.S.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ANTH 4701 - Topics in Sociocultural Anthropology

3 hours Selected topics of interest and significance in sociocultural anthropology. While this course is offered on a regular basis, particular topics are taught irregularly.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4720 - Human Rights Anthropology

3 hours Focuses on the events that led to the burgeoning of human rights as a concept and as something in need of protection. Evaluates human rights theories and practices, and examines the global, regional, and local ideologies and doctrines at the heart of human rights violations and studies across the globe.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4730 - Feminist Anthropology

3 hours Focuses on the development and current-day practices of feminist anthropology, with special attention to significant theories, themes of study, and debates within the field. Critical analysis of the social construction of sex/gender and deeper understanding of the ways that categories of sex/gender are constructed in and through cultural norms about sexuality, race, ethnicity, indigeneity, class, and nationality.

Meets with ANTH 5730.

May not receive credit for both ANTH 4730 and ANTH 5730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4740 - Anthropological Perspectives in Tourism

3 hours Explores representations of the exotic "other" in host vs. guest encounters before examining such intricacies of global tourism as heritage and authenticity, staging and commodification, development, gender inequality, and sustainability. Through ethnographic case studies, students explore and compare these phenomena in cultural tourism, eco-tourism, spiritual tourism, and biomedical tourism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4751 - Culture, Religion and Ritual

3 hours Focuses on comparing religious and supernatural belief across cultures, through the perspective of anthropology. The origin, development and function of religions in human societies, as well as classic anthropological concerns about the role of myth, ritual, ethics, magic and shamanism in society. By comparing what is religious in many cultures, students develop a better understanding of the relationship between human beings, religion, and their own religious beliefs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4755 - Anthropology of Stuff and Things

3 hours Investigates human relationships in and with the material world using an array of anthropological perspectives and methodologies. From art, architecture and adornment to tools, technology and transportation, students study how people create, value, exchange, consume, contest, discard and dwell in a world of "stuff and things."

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4760 - Inequality, Social Justice and the City

3 hours Historical and ethnographic examination of urban society and how people-centered movements might regain "rights to the city." Focuses on local examples of urban social justice causes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4765 - Urban Beings

3 hours Examines the human experience in cross-cultural urban contexts from an anthropological perspective. Balancing materialist and ideological explanations of sociocultural arrangements, ethnographic readings and case studies showcase stunning diversity and surprising similarity in urban dwellings and dwellers. Students conduct independent research analyzing urban beings in the DFW Metroplex.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4770 - Ethnographic Field School

3–6 hours Field methods in anthropology. Practice of the unique field methods used in anthropology, especially "participant observation," through travel to a domestic or international field site and becoming immersed in the local culture. Students gain an in-depth understanding of contemporary and historic culture through relevant literature on the area and anthropological field methods, and through practical experience by putting field techniques and methods of data gathering and analysis to work in the field.

May be repeated for credit up to a total of 15 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4920 - Internship in Anthropology

3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Must have taken ANTH 2300; UNT or Overall GPA of at least 3.00; junior or senior standing (60+ earned hours); must have taken at least 15 hours of ANTH course work; must be an ANTH major. Consent of department.

Students must submit and have their ANTH 4920 application approved by department in the semester prior to enrollment. Students must meet all of the above prerequisites to enroll; exceptions will be considered on a case-by-case basis.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ANTH 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

Applied Data Analytics and Research

ADAR 2020 - Data Design, Analysis and Representation

3 hours Introduction to basic concepts in statistics, interpretation and visualization of data patterns. Introduction to real-world datasets. Explores how to deal with incomplete and inconsistent information to produce reliable insights from structured and unstructured data, and may include work with industry partners. Topics may include data generating processes, descriptive statistics and graphic data representations.

Prerequisite(s): None. DSCI 2710 strongly recommended.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 3020 - Inferential Analysis

3 hours Introduction to inferential statistics, prediction, group comparison and probabilistic measures to inform decision-making processes. Explores how these work in real-world contexts and may include work with industry partners. Topics may include probability, hypothesis testing and linear regression of quantitative and qualitative data.

Prerequisite(s): Choose one of the following courses: PRJM 3130, DSCI 2710 or MATH 1680.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 3220 - Applied Project Analytics

3 hours Covers the key basic concepts from a range of disciplines including finance, managerial and financial accounting, and project accounting. The concepts cover discounted cash flows, net present value, cost of capital, sensitivity analyses, risk (expected monetary value, decision tree analysis), account statements, balance sheets, ratio analysis, liability and asset identification, cost management, project monitoring, earned value management, and cost recognition approaches. The course objective is to provide students with an understanding of tools, techniques, and practices in business to strengthen their project managing skills. The course helps students develop skills in business research and strategy, portfolio and project alignment, and equip them with fundamental knowledge required for entrepreneurship.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 4020 - Process Optimization and Prescriptive Analysis

3 hours Introduction to simulation and optimization processes. How to address complex problems by using day to day operations data. Topics may include deterministic and stochastic modeling for operations research, linear programming, production frontiers and theory of constraints.

Prerequisite(s): ADAR 3020 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 4120 - Mixed Methods Research

3 hours

An integration of quantitative and qualitative analysis provides a more complete and synergistic utilization of data. Topics may include mixed methods research design, interaction between qualitative and quantitative strands, and convergent, explanatory, exploratory and embedded design.

Prerequisite(s): ADAR 4020 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 4610 - Applications in Analytics and Operations Research I

3 hours

Application of analytics and operations research methods to case study projects designed to help students apply techniques in real-world settings and attain proficiency in professional communication. Focuses on discipline-specific skills necessary to excel in careers or graduate studies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADAR 4620 - Applications in Analytics and Operations Research II

3 hours

Second course in applying analytics and operations research methods to case study projects designed to help students apply techniques in real-world settings and attain proficiency in professional communication. Projects are more complex than those considered in the first course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Applied Design Thinking

ADSN 2030 - Applied Design Thinking

3 hours Introduces students to the field of design, how designers' approach and address issues, and explores design as a practice, process, proposal and product. For non-art/design majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADSN 3030 - Applied Design Principles and Practices

3 hours Survey of design principles applicable to a variety of industries and professions. For non-art/design majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADSN 3031 - Applied Design Research

3 hours Apply generative, exploratory and evaluative research methods used by designers to gather deep insights. For non-art/design majors only.

Prerequisite(s): Must have successfully completed ADSN 2030 or ADSN 3030 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

ADSN 4030 - Applied Strategic Design

3 hours Explores future-oriented design principles that help organizations become more innovative and competitive, such as forecasting and futures thinking to address current or future challenges.

Prerequisite(s): ADSN 2030 or ADSN 3030 or ADSN 3031.

For non-art/design majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Applied General Music

MUAG 1001 - Piano Class for Non-Music Majors

1 hour (0;3) Fundamentals of keyboard technique for beginning piano students: level I (non-major).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1002 - Piano Class for Non-Music Majors

1 hour (0;3) Fundamentals of keyboard technique for beginning piano students: level II (non-major).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1011 - Keyboard Skills for Music Majors

(MUSI 1181)

1 hour (0;3) Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for beginning students: level I.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1012 - Keyboard Skills for Music Majors

(MUSI 1182)

1 hour (0;3) Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for beginning students: level II.

Prerequisite(s): A grade of C or better in the previous level (MUAG 1011).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1013 - Keyboard Skills for Music Majors

1 hour (0;3) Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for beginning students: level III.

Prerequisite(s): A grade of C or better in the previous level (MUAG 1012).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1014 - Keyboard Skills for Music Majors

1 hour (0;3) Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for beginning students: level IV (includes the Piano Proficiency Exam).

Prerequisite(s): A grade of C or better in the previous level (MUAG 1013).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1101 - Introduction to Winds and Percussion Methods

1 hour Develops the knowledge and skills of choral music education students to the level necessary to teach instrumental music (woodwinds, brass, and percussion) in a public school setting. Focuses on 1) teaching techniques for individual instruments, 2) developing playing skills on individual instruments with a focus on the ability to model for students, 3) compiling resources that will assist the student in future instrumental music teaching.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1102 - High Brass Methods

1 hour (0;3) Development of pedagogical skills and knowledge for teaching trumpet and horn in school music settings. Prepares undergraduate music education students to go into any beginner to intermediate brass class setting and successfully teach high brass instruments (trumpet and horn). Skills include, but are not limited to, instruction on instrument selection, teaching posture, breathing, instrument parts, instrument assembly, embouchure, tone production, articulation, range, fingerings, transpositions, and care and maintenance for trumpet and horn.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1107 - Guitar Class

1 hour (0;3) Classical guitar for beginners. Students provide instruments. Secure recommended specifications from instructor.

Prerequisite(s): Enrollment only by audition and consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1117 - Percussion Class

(MUSI 1188)

1 hour (0;3) All major percussion instruments; proper playing techniques and methods for teaching fundamentals.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1121 - Strings Class

1 hour (0;3) Basic techniques of violin, viola, cello and bass.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1124 - Voice Class for Non-Music Majors

(MUSI 1183)

1 hour (0;3) Fundamentals of correct breathing, tone production and diction.

For non-music majors with little or no previous voice training. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1125 - Flute and Saxophone Methods

1 hour (0;3) Development of pedagogical skills and knowledge for teaching flute and saxophone in school music settings. Prepares undergraduate music education students to go into any beginner to intermediate woodwind class setting and successfully teach flute and saxophone. Skills include, but are not limited to, instruction on instrument selection, teaching posture, breathing, instrument parts, instrument assembly, embouchure, tone production, articulation, range, fingerings, transpositions, and care and maintenance for each woodwind instrument. In addition, students learn how to incorporate other elements of teaching a beginner band class, such as creating objective sheets, rhythmic reading, basic music theory, and creating a timeline for a beginning band class.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1202 - Low Brass Methods

1 hour (0;3) Development of pedagogical skills and knowledge for teaching trombone, euphonium, and tuba in school music settings. Prepares undergraduate music education students to go into any beginner to intermediate brass class setting and successfully teach low brass instruments (trombone, euphonium, and tuba). Skills include, but are not limited to, instruction on instrument selection, teaching posture, breathing, instrument parts, instrument assembly, embouchure, tone production, articulation, range, fingerings, transpositions, and care and maintenance for trombone, euphonium, and tuba.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1221 - Strings Class

1 hour (0;3) Basic techniques of violin, viola, cello and bass.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1224 - Voice Class for Music Majors

1 hour (0;3) Fundamentals of correct breathing, tone production, diction and basic vocal pedagogy.

For instrumental music majors. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1225 - Clarinet, Oboe and Bassoon Methods

1 hour (0;3) Development of pedagogical skills and knowledge for teaching clarinet, oboe, and bassoon in school music settings. Prepares undergraduate music education students to go into any beginner to intermediate woodwind class setting and successfully teach clarinet, oboe and bassoon. Skills include, but are not limited to, instruction on instrument selection, teaching posture, breathing, instrument parts, instrument assembly, embouchure, tone production, articulation, range, fingerings, transpositions, and care and maintenance for each woodwind instrument. In addition, students learn how to incorporate other elements of teaching a beginner band class, such as creating objective sheets, rhythmic reading, basic music theory, and creating a timeline for a beginning band class.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1905 - English and Spanish Diction for Singers

1 hour (2;0) Diction/pronunciation skills for singing in English and Spanish. Introduction to phonetic analysis of vocal music in English and Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1906 - French Diction

1 hour (2;0) Diction/pronunciation skills for singing in French; introduction to phonetic analysis of vocal music in French.

Prerequisite(s): MUAG 1905 and MUAG 1909 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1907 - German Diction

1 hour (2;0) Diction/pronunciation skills for singing in German; introduction to phonetic analysis of vocal music in German.

Recommended: MUAG 1905 and MUAG 1909 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 1909 - Italian Diction

1 hour (2;0) Diction/pronunciation skills for singing in Italian; introduction to phonetic analysis of vocal music in Italian.

Recommended: MUAG 1905 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 3130 - Fretboard Harmony

2 hours Integrates students' understanding of harmony with the actual performance on the fretboard, developing a tangible connection between theory and practice. Topics covered include melodic harmonization, transposition, chord reading, arranging, and harmonization on the guitar.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3230 - Keyboard Improvisation

3 hours Whether they be pianists, organists, collaborative pianists, or harpsichordists, keyboardists sometimes find themselves in situations in which improvisation skills are needed. A clearer understanding of the principles involved will give students a better chance to succeed in these situations, and will also help students better understand harmony in everything they play.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3240 - Techniques of Piano Accompanying

3 hours Review of sight-reading skills; repertoire from Italian anthology; simpler songs of Schubert, Schumann and Fauré; arias. Concerto accompaniments from classic repertoire; discussion and demonstration of piano reductions.

Prerequisite(s): Consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3250 - Techniques of Piano Accompanying

3 hours Study of Lieder and art-song repertoire, arias, concerti and instrumental solos.

Prerequisite(s): MUAG 3240 or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3260 - Piano Literature

3 hours (3;0) Bach through the early romantics. Survey of major composers, styles and forms; individual topics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3270 - Piano Literature

3 hours (3;0) The late romantics to the present. Survey of major composers, styles and forms; individual topics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3800 - Fundamentals of Conducting

2 hours (3;0) Fundamentals of conducting, including beat patterns, various gestures for attack, release and phrasing. Includes the use of the left hand, score reading, development of aural skills, rehearsal techniques, and interpretation.

Prerequisite(s): MUTH 2400, MUTH 2410. Junior standing.

Meets with MUAG 5805.

MUAG 3800 is a prerequisite for MUAG 3820 and MUAG 3870.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 3820 - Choral Conducting

2 hours (3;0) Continuation of MUAG 3800. Focuses on refining physical skills, the introduction of group choral training, choral rehearsal techniques, and aural development skills.

Prerequisite(s): MUAG 3800, MUTH 2500, MUTH 2510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUAG 3870 - Instrumental Conducting

2 hours (3;0) Score reading and preparation; practical application of transposition for all instruments; psychology of conducting; multimeter patterns; stylistic considerations; extensive conducting practicum utilizing both wind and orchestral literature.

Prerequisite(s): MUAG 3800, MUTH 2500, MUTH 2510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUAG 4001 - Student Teaching in Studio Piano

3 hours (1;2) Observation and supervised student teaching with an emphasis on private studio teaching.

Prerequisite(s): Consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4002 - Student Teaching in Group Piano

3 hours (1;2) Observation and supervised student teaching with an emphasis on group piano teaching.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4050 - Symphonic Literature of the Wind Band

3 hours Historical overview of symphonic wind literature from the Renaissance to the present; emphasis on skills for recognizing aesthetic value, compositional elements, and historical background in wind band genres and their application to ensemble programming and curricular design.

Prerequisite(s): MUMH 3500, MUMH 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4070 - Operatic Literature I

3 hours Historical overview of Western opera from Baroque through Bel canto; emphasis on skills for recognizing and analyzing operatic styles and genres from both the musical and dramatic perspectives.

Prerequisite(s): MUMH 3500, MUMH 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4072 - Operatic Literature II

3 hours Historical overview of Western opera from Wagner to the present; emphasis on skills for recognizing and analyzing operatic styles and genres from both the musical and dramatic perspectives.

Prerequisite(s): MUMH 3500 and MUMH 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4160 - Elementary Piano Pedagogy

3 hours Approaches for children and adult beginners; technique, style and musicianship; review and recommendation of materials for all grades. Supervised student teaching.

Meets with MUAG 5160.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4170 - Intermediate Piano Pedagogy

3 hours Approaches for children and adult beginners; technique, style and musicianship; review and recommendation of materials for all grades. Supervised student teaching.

Prerequisite(s): MUAG 4160 or consent of college.

Meets with MUAG 5170.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4200 - Video Games: Behind the Screens

3 hours Students play, study, and theorize several video games in depth. Students integrate studies in music and sound into the visual domain. The musical dimension of the course is designed for non-majors. Our examination of music and sound will involve an elementary level of pitch-based description in addition to studies of data visualization of sound--particularly through the software Sonic Visualizer.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4210 - Vocal Literature

3 hours Solo literature since the Renaissance; style, interpretation and materials for all voice classifications. Music performed by class members and through recordings.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4220 - Operatic Acting

2 hours (1;2) Analysis and preparation of roles, exercises in pantomime, improvisation, visualization and concentration.

Recommended: Students must have passed the upper division exam in voice, have studied at least two semesters with current voice teacher, have permission from voice teacher, and have at least two operatic arias in repertoire.

Meets with MUAG 5640.

Course can be taken as a complement to MUEN 3040 - Opera Theatre to fulfill the Senior Vocal Requirement for Voice Performance majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4225 - Oratorio Repertoire and Practicum

3 hours Comprehensive study and performance of oratorio repertoire from the Baroque through Contemporary periods.

Prerequisite(s): MUMH 3500 and MUMH 3510.

Meets with MUAG 5225.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4250 - Topics in Vocal Literature

2 hours An advanced-level course designed to deepen the knowledge of a specific genre in vocal literature such as French Art Song, German Art Song, etc., allowing students to spend an entire semester working toward the mastery of an integral part of the literature.

Prerequisite(s): Junior standing or higher.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4300 - Science and Pedagogy of Singing

3 hours Basic knowledge of respiration, phonation, resonation and articulation; concepts and techniques for the teaching of singing. Laboratory demonstrations and studio observations for students of voice, choral conducting and composition.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4310 - Science and Pedagogy of Singing

2 hours Basic knowledge of respiration, phonation, resonation and articulation; concepts and techniques for the teaching of singing. Laboratory demonstrations and studio observations for students of voice, choral conducting and composition.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4350 - Repair and Maintenance of Musical Instruments

1 hour (0;3) Repair of brass, woodwind and percussion instruments. For instrumental music teachers and those interested in instrument repair.

Prerequisite(s): Consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4360 - Instrumental Pedagogy and Repertoire

3 hours Study and analysis of instrumental literature; correlation of literature and pedagogical materials; survey of schools of performance and instruction; brass, percussion, keyboard, strings and woodwinds.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4370 - Instrumental Pedagogy and Repertoire

3 hours Study and analysis of instrumental literature; correlation of literature and pedagogical materials; survey of schools of performance and instruction; brass, percussion, keyboard, strings and woodwinds.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4380 - Organ Literature and Pedagogy

3 hours Survey of organ repertories and styles from the Renaissance through the early 21st century with emphasis on representative masterpieces from the important national schools of composition. Aligned with this study will be due consideration of the instruments influencing the performance and registration of these repertories and pedagogical issues relevant to the teaching of this music.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4410 - Harpsichord Literature and Pedagogy

3 hours Harpsichord music of the Renaissance and early Baroque periods. Survey of major composers, national styles and forms; construction and design of appropriate instruments. Performance practices are thoroughly explored. Pedagogical principles are applied to repertoire. Individual research projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4420 - Harpsichord Literature and Pedagogy

3 hours (3;0) Harpsichord literature from the mid-17th century to the present, including the music of Bach. Survey of major composers, styles, forms and ensemble literature; construction and design of appropriate instruments. Performance practices are thoroughly explored. Pedagogical principles are applied to repertoire. Individual research projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4700 - Senior Recital

1 hour (0;0;1) Public recital in which the student must demonstrate mastery of music performance skills appropriate to the completion of a bachelor's degree in performance.

Prerequisite(s): Three terms/semesters of MUAM 35XX and consent of college. Successful completion of secondary Piano Proficiency Exam.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4710 - Instrumental Studies Senior Recital

3 hours Public performance of music by each student completing undergraduate studies in performance. The culmination of at least four years of work in academic and applied music. It represents the academic, musical and artistic growth the student has experienced throughout the undergraduate career. The senior recital is typically given in the last semester of undergraduate study.

Prerequisite(s): Three semesters of MUAM 35XX and consent of college. Successful completion of secondary Piano Proficiency Exam.

Individual instruction.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4711 - Keyboard Senior Recital

3 hours Public performance of music by each student completing undergraduate studies in keyboard performance. The culmination of at least four years of work in academic and applied music; it represents the academic, musical and artistic growth the student has experienced throughout the undergraduate career. The senior recital is typically given in the last semester of undergraduate study.

Prerequisite(s): Three semesters of MUAM 35xx and consent of college. Successful completion of Open Score/Transposition/Score Reading exam for piano majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4712 - Voice Senior Recital

3 hours Public performance of music by each student completing undergraduate studies in vocal performance. The culmination of at least four years of work in academic and applied music; it represents the academic, musical and artistic growth the student has experienced throughout the undergraduate career. The senior recital is typically given in the last semester of undergraduate study.

Prerequisite(s): Three semesters of MUAM 35xx and consent of college. Successful completion of secondary Piano Proficiency Exam.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4720 - Organ Service Playing I

2 hours (1;1) Intense study of basic hymn playing, harmonic progressions, melody harmonization, open score reading (including alto and tenor clefs), modulation, figured bass, transposition and elementary improvisation.

Prerequisite(s): MUTH 2500, MUTH 2510.

Successful completion of this course allows students to compete for major church positions and prepare for the AAGO certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4730 - Organ Service Playing II

2 hours (1;1) Advanced study of figured bass, open score reading (four parts including both tenor and alto clefs), transposition of more difficult textures, and improvisation of binary, ternary and variation (choral partita) structures.

Prerequisite(s): MUAG 4720 or placement by permission of college.

Successful completion of this course prepares students for FAGO certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4740 - Seminar in Church Music

3 hours For interests and talents of students; class and private conferences. Topics include historical and contemporary developments in hymnody; liturgical music; church choir literature and techniques; and church music philosophy, education and administration.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4890 - Seminar in Performance and Repertoire

3 hours Consideration of style, interpretation, performance practice traditions of selected portions of the performing repertoire; student performances and recordings.

Prerequisite(s): Consent of college.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAG 4900 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4910 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAG 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Applied Gerontology

AGER 2000 - Global Aging and Individual Aging

3 hours Introduction to gerontology as an interdisciplinary field of study, a field that includes important psychological, social, economic and demographic dimensions and forces that are altering the life of individuals and the operation of various societies. Brief examination of biological, psychological, social and economic factors and dimensions that make up the aging experiences of individuals as well as how the "aging population" affects the way we organize our various societies. Public policy issues are the focus of each class to show the relevance of the basic science material presented in the course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 2250 - Images of Aging in Film and Literature

3 hours Study of attitudes toward aging through depictions of the elderly in English-language films and literary works. A major goal of the course is to replace stereotypical views of the elderly with an understanding of the variety of human experience in the last decades of life.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4550 - Sociology of Aging

3 hours Twenty-somethings, generation Xers, baby boomers—all will be senior citizens sooner or later. Their sex, race/ethnicity and social class will affect their experience of aging. Course explores issues related to successful aging, including what young adults should be doing now to ensure that they have happy, healthy, wealthy and creative golden years.

Prerequisite(s): SOCI 1510 or equivalent.

Same as SOCI 4550.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4560 - Minority Aging

3 hours Introduction to the study of minority elderly in the United States, including their physical and mental health, income security, family relations and service issues. Course content focuses on African-American, Asian/Pacific Islander, Hispanic and Native American elders.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4750 - Sexuality and Aging

3 hours One of the most pervasive myths of aging is that older people are non-sexual. This course challenges popular stereotypes and examines sexual attitudes, activity and behavior as people age. In addition to common social beliefs and attitudes that may affect the opportunity for sexual expression among older adults, biological changes and sexual response are explored, as are other aspects of intimacy important to aging individuals.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4780 - Aging Programs and Services

3 hours Introduction to the history of social policy in aging; derivations and directions of public policy; interrelationships of agencies; discussion of selected programs and services for the aged.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4800 - The Social Context of Aging: Global Perspectives

3 hours Analysis of the aging experience in a global context, historically and currently. Topics include perceptions of aging, definition of need in old age and models for delivering health and social services to older persons.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

AGER 4900 - Special Problems

1–3 hours

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

Applied Multidisciplinary Studies

AMDS 2900 - Special Problems

1–3 hours Learning experience designed to address academic, industry or career-ready need and fit beyond normal course offerings.

May be repeated for credit as topics vary for a maximum of 9 hours.

AMDS 3100 - Applied Finance Essentials

3 hours Provides foundational insight into the essentials of finance for students of all disciplines with administrative aspirations. Fundamental financial literacy terminology, key concepts, and strategies discussed provide imperative knowledge and transferable skills needed to help manage finances in both personal and professional settings.

Open to all majors.

AMDS 3210 - Public Engagement in Heritage Management

3 hours Helps heritage managers leverage various genres of both written and oral communication in public engagement. Students will understand and practice various ways in which heritage managers engage with the public, a key skill in sustainable heritage management. Students both read and write different types of documents relating to heritage communication; examine different modes of communication; examine case studies; and develop their own individual and team projects that include written, oral, and multi-modal communication.

Prerequisite(s): ENGL 1310 and ENGL 1320 or equivalent(s) with a C or better.

AMDS 3220 - Heritage Museum Studies

3 hours Examines issues related to the conservation, management, interpretation, and use of the past in the present. Focused on the practice of collecting and managing tangible heritage; topics are centered on the histories, purposes, and responsibilities of heritage museums as sites for the construction, preservation, and dissemination of memory, identity, and culture. Content analyzes heritage museums as sources for social responsibility and as tools for understanding cultural, social, and political influences in society.

AMDS 3230 - Heritage Travel

3 hours Explores themes of heritage and cultural travel by examining questions of what motivates people to travel, how cultural identity is developed and perceived, and the economic development and implications of heritage travel. Explores heritage travel through an interdisciplinary lens, emphasizing methodologies in fields such as history, art and architectural history, music and performance, material culture, literature, economics, and placemaking. Students will examine theories of travel as well as a variety of case studies from around the world.

AMDS 3240 - Heritage Laws and Ethics

3 hours Offers an in-depth examination of heritage management, focusing on the legal frameworks, ethical considerations, and international perspectives that shape the preservation and conservation of cultural and natural heritage sites. Students explore the complexities of heritage laws and regulations, ethical dilemmas in heritage management, and the role of international organizations such as UNESCO in safeguarding heritage sites worldwide. Through case studies, discussions, and practical exercises, students develop a comprehensive understanding of heritage management principles and practices.

AMDS 4800 - Internship

1–6 hours Supervised work in a job related to the student's life and career objectives.

AMDS 4900 - Special Problems

1–3 hours Learning experience designed to address academic, industry or career-ready need and fit beyond normal course offerings.

May be repeated for credit as topics vary for a maximum of 9 hours.

Applied Project Management

APMG 2011 - Project Workshop: Beginner

1 hour Workshop associated with PRJM 3110. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Corequisite(s): PRJM 3110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 2041 - Project Workshop: Beginner

1 hour Workshop associated with CACS 2040. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Corequisite(s): CACS 2040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 3120 - Problem Analysis

3 hours Students integrate core knowledge and skills with theories of problem and process analysis in a collaborative setting.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 3121 - Project Workshop: Intermediate

1 hour Workshop associated with APMG 3120. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Corequisite(s): APMG 3120.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 3220 - Project Management II

3 hours Students integrate core knowledge and skills with theories of more advanced project management and process improvement in a collaborative setting.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 3221 - Project Workshop: Intermediate

1 hour Workshop associated with APMG 3220. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Corequisite(s): APMG 3220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 4020 - Organizational Contexts and Change

3 hours Students integrate university core knowledge and skills with theories of organizational behavior and change management in a collaborative setting.

Prerequisite(s): Declared major in College of Applied and Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 4021 - Project Workshop: Advanced

1 hour Workshop associated with APMG 4020. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Corequisite(s): APMG 4020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 4120 - Capstone

3 hours Culmination of the multidisciplinary learning experience. Integrating concepts and skills in project management, design thinking, and data analysis into a project of the student's choosing.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies, senior status, and department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

APMG 4121 - Project Workshop: Advanced

1 hour Workshop associated with APMG 4120. This applied project-based learning workshop focuses on addressing real-world problems.

Prerequisite(s): Declared major in College of Applied and Collaborative Studies, senior status, and department consent.

Corequisite(s): APMG 4120.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Arabic

ARBC 1010 - Elementary Arabic

(ARAB 1411)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 1020 - Elementary Arabic

(ARAB 1412)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 2040 - Intermediate Arabic

(ARAB 2311)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 2050 - Intermediate Arabic

(ARAB 2312)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 2910 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 3040 - Advanced Topics in the Culture of the Middle East

3 hours Explores the history and culture of the Near East, from the time of Muhammad to the present. Examines the rise and definition of Islamic civilization and the spread of Islam. Topics include major political figures and historical events, institutions, economic developments, social issues (education, family, women), history of ideas, literary movements, art history, and music history.

Prerequisite(s): ARBC 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ARBC 3060 - Advanced Topics in Arabic Language

3 hours Study of authentic materials in classical prose to create a foundation for the mastery of classical Arabic. Also involves more extended readings and discussions of contemporary and historical cultural topics. In addition to a review of syntax and morphology, the course intends to increase the range and accuracy of oral and written expression and aural comprehension. Classes are conducted entirely in Arabic.

Prerequisite(s): ARBC 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ARBC 3065 - Advanced Arabic Conversation

3 hours 45 Conversational skills aiming primarily at developing fluency and accuracy in dialect as well as listening and comprehension skills. Study of cultural aspects relevant to the Arab world.

Prerequisite(s): ARBC 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ARBC 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ARBC 4910 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

Archaeology

ARCH 2800 - Archaeological Science

3 hours (3;2) Human prehistory and methods of scientific investigation; emphasizes archaeological cultures from early hominid sites in East Africa to entry of peoples into the New World. Course stresses methods of interdisciplinary research, including geology, paleoenvironmental reconstruction, paleodiet and artifact-faunal analysis. Labs employ artifacts and bones for study.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ARCH 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ARCH 3650 - Origins of Civilization

3 hours Comparative study of the cultural, technological and ecological patterns of change leading to urban civilizations. Surveys the archaeological evidence for the domestication of plants and animals, and the emergence of villages. The art, architecture, economic and sociopolitical characteristics of early civilizations in the Near East and Mesoamerica are examined.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ARCH 4620 - Topics in Archaeology

3 hours Selected topics of interest and significance in archaeology. Subjects such as historic archaeology, Texas archaeology, New World archaeology, Old World archaeology and Meso-American archaeology are potential topics offered during different terms/ semesters.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ARCH 4810 - Archaeological Field School

6 hours Comprehensive training in site survey, excavation techniques, laboratory processing, restoration and analysis of archaeological materials through direct participation in an archaeological field project.

Recommended: ARCH 2800 or consent of department.

Held off campus; room and board fees may be required. Usually offered only during the summer months and based on the availability of field projects. This course is taught in cooperation with the Institute of Applied Science.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

Art

ART 1300 - Art Appreciation for Non-Art Majors

(ARTS 1301)

3 hours Introduction to basic concepts and vocabularies of the visual arts worldwide, designed to expand aesthetic growth and involvement with the visual world.

Prerequisite(s): For non-art majors only.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1301 - Honors Art Appreciation

3 hours History and analysis of Western art with reference to non-Western cultures.

Prerequisite(s): Acceptance into the Honors College.

May be substituted for ART 1200X or ART 1300.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1440 - Design I

3 hours (1;5) Combination of lecture and studio in a structured approach to 2-dimensional design, incorporating theory, concepts/terminology (point/line, shape, value, texture, color, space) and problem-solving techniques. Students are required to apply concepts and terminology both visually and verbally.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1450 - Design II

3 hours (1;5) Combination of lecture and studio in a structured approach to 3-dimensional design, incorporating theory, concepts/terminology (relief, free standing and linear forms; effects of light/color on 3-dimensional forms) and problem-solving techniques. Students are required to apply concepts and terminology both visually and verbally.

Prerequisite(s): ART 1440 with a grade of C or better.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1500 - Drawing I

3 hours (1;5) Development of drawing skills based on art elements and concepts.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1510 - Drawing II

3 hours (1;5) Further development of drawing skills. Complex perspective, figure studies (including drawing from a live nude model), exploration of color, examination of contemporary and historic art, and development of independent research projects.

Prerequisite(s): ART 1500 with a grade of C or better.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1600 - Foundations: Perception and Translation

(ARTS 1316)

3 hours (1;5) Focuses on the translation of visual phenomena using a variety of digital and analog drawing (mark-making) materials.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1700 - Foundations: Space (Physical, Temporal and Virtual)

(ARTS 1312)

3 hours (1;5) Explores multiple conceptions of space, ranging from physical objects to metaphorical space.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1800 - Foundations: Narrative and Representation

(ARTS 1311)

3 hours (1;5) Emphasizes multiple levels of representation ranging from the physical to the intangible.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 1900 - Foundations: Systems and Transformations

(ARTS 1317)

3 hours (1;5) Critically analyzes multiple (choice- and research-based) perspectives of object- and image-making and challenges students to develop a personal framework in the processes of visual art and design.

Prerequisite(s): Two of the following: ART 1600, ART 1700, ART 1800 with a grade of C or better.

Corequisite(s): One of the following: ART 1600, ART 1700, ART 1800.

Concurrent enrollment in lecture/laboratory components required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2020 - Digital Tools and Technologies for Creative Practice

3 hours (0;6) Introductory course exposing students to the language and application of digital media and resources for art and design practice. Introduces students to digital art-making and communication for art environments, social media, interactive media, and 2D/3D digital fabrication technology through the use of digital tools, including Adobe Creative Cloud applications, and open source software. Students achieve competency in basic contributions to digital image culture through the use of various technology both in application and process.

Prerequisite(s): Two of the following: ART 1600, ART 1700, ART 1800, ART 1900 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2350 - Art History Survey I

(ARTS 1303)

3 hours Introduction to the development of art forms from the earliest prehistoric cave paintings through the late Middle Ages.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2360 - Art History Survey II

(ARTS 1304)

3 hours Art from the 14th century to the mid-19th century throughout the world.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2370 - Art History Survey III

3 hours An introduction to the development of global art forms from the mid-nineteenth century to the present.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2910 - Special Problems

1–3 hours Prerequisite(s): Consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Recommended: Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 3030 - Digital Communication for Art and Creative Entrepreneurship

3 hours (0;6) Investigation in the conceptual, technical and practical uses of digital tools for communication and promotion in the art and design fields. Students learn a diversity of techniques applied in art studio practice, social media practice, arts administration, design management, museology, and the creative economy at large using digital applications, computer programs and technology. Focuses on the creation of various digital products for arts promotion and entrepreneurship using applications in Adobe Creative Cloud, social media, and existing web-based platforms.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900 and ART 2020 with a grade of C or better, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4120 - Art on Location

3 hours Visits to major museums, galleries, showrooms and design studios. Research on selected art topics or projects. Course includes field trip and classroom lectures.

Prerequisite(s): ART 2350 and ART 2360 with a grade of C or better and any CVAD major or pre-major.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4450 - Professional Internship

3–6 hours In-training programs offered in cooperation with approved business and professional houses. Students wishing credit must have instructor approve plan. Term reports required of students and employers.

Prerequisite(s): Junior standing.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4614 - Art and Business

3 hours Introduction to how art, business and economics intersect in a variety of settings, both for-profit (galleries, auction houses, artists' studios) and non-profit (museums, municipalities, universities and arts organizations). Following an introduction to basic terms and concepts, topics include art markets, philanthropy, legal and management issues related to the visual arts, branding and marketing in the arts, and art business models. Emphasizes real-life scenarios, case-studies, and problem-based learning to develop critical thinking and problem-solving skills, improve oral and written communications, and stimulate interest in the economics of art-related fields.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, with a grade of C or better; ART 2350, ART 2360 and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4620 - Grant Writing and Arts Funding

3 hours Explores the study of grant writing and funding strategies for artists, creatives and arts organizations.

Prerequisite(s): ART 2350, ART 2360, ART 2370 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4640 - Community Engagement in Art and Design

3 hours This is an exclusively service-learning and community engagement course that prepares students to responsibly participate in class projects that contribute to community arts initiatives, arts organizations, and/or cause-based design projects. Provides students with opportunities to engage in professional development, networking, and establishing connections with the local art and design communities within North Texas and beyond.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, with a grade of C or better; ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4660 - Seminar in Design Management

3 hours Research and study in the relationship between design, products, services, and the interdisciplinary relationships of design practice.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, ART 2350, ART 2360, ART 2370, with a grade of C or better; or consent of IADS Program. Must be accepted into and have a degree plan on file for one of the following: BA: Interdisciplinary Art and Design Studies; BFA: Communication Design; BFA: Fashion Design; BFA Interior Design.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4662 - Design Management Integrative Capstone

3 hours Exploration of the overlap between business and design integrating content from previous courses to prepare prototypical briefs outlining appropriate applications for innovative solutions for selected companies.

Prerequisite(s): ART 4660 or consent of instructor or department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4899 - Topics in Interdisciplinary Arts and Design Studies

3 hours Special topics course for interdisciplinary art and design studies majors. Advanced interdisciplinary study of art and design. Specific topics vary. Delivered as seminar consisting of assigned readings, class discussion, research, and projects.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, ART 2350, ART 2360, ART 2370 with a grade of C or better; IADS major, junior standing.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4900 - Special Problems

1–3 hours Prerequisite(s): Admitted into a CVAD major or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4910 - Special Problems

1–3 hours Prerequisite(s): Admitted into an ART major, or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4940 - Understanding Art Museums

3 hours Explores the history, organization, functions and collections of art museums. Assignments in Dallas/Fort Worth museums required.

Prerequisite(s): ART 2350, ART 2360 and ART 2370 with a grade of C or better or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ART 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Recommended: Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

Art Education

ARTE 1750 - Visual Arts Integration

1 hour (0;2) Exploration of planning for meaningful visual art integration within early childhood and elementary education, experimentation with a variety of media and processes, along with an appreciation of a variety of art forms.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 2100 - Professional Pathways for Arts Education

3 hours Applicable to students wanting to explore career paths and professional possibilities in arts education. Introduces students to a variety of career pathways and institutional sites for arts education. Topics include arts advocacy and leadership; critical perspectives on art, culture, and educational institutions; and examinations of the roles and forms of arts education in digital environments. This will be an elective course for Art Education majors pursuing certification. Conducted in a seminar format. Evaluation methods include, for example, critical response papers to readings and field trips, discussion with visiting speakers, tests, and portfolio assessment.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, with a grade of C or better; or consent of department.

Open to students from College of Education and across CVAD.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 3753 - Elements of Art Education Practice

3 hours

Orientation to the field of art education, through key movements, concepts, and structures of professional practice across various sites of arts education practice. Required for Art Education majors pursuing certification.

Prerequisite(s): Pre-major status in art education or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 3770 - Intersections of Technology, Art and Education

3 hours (0;6)

Exploration of the role of technologies, digital and otherwise, in contemporary art education. Emphasis on the intersections of artistic expression, STEAM innovations, and social intervention in the teaching and learning of art.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4101 - Art Education Clinical Teaching Seminar

3 hours This undergraduate capstone seminar provides a required forum for students enrolled in clinical teaching to make connections between their coursework acquired during their degree, and what they experience at their sites. The objective of this course is to be a bridge connecting student learning across these sites, to create a community of practice where students can share and learn from each other, creating a peer network, and preparing them to navigate the job market. Topics include classroom management, lesson planning, relationships with colleagues and students, teacher identity formation, portfolio preparation and interviewing skills. This will be a required course for students as they progress through their student teaching. Evaluation methods include participation in discussions, critically reflective assignments, and a final portfolio for job applications. The seminar will meet once every 2 weeks during the semester and may be offered in in-person, online or hybrid modalities, depending on pragmatic realities of student clinical teaching schedules and distances they are traveling, from their clinical teaching sites to the UNT Denton campus.

Prerequisite(s): Art Education major with EC-12 certification concentration; ARTE 4750, ARTE 4780.

Corequisite(s): Concurrent enrollment in EDEE 4101 & EDCI 4138.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4708 - Art Education Laboratory School

3 hours Facilitates students' planning and teaching of visual arts curriculum for EC-12 attendees to our Mulberry Street Studio Youth Art Program. Working in collaborative groups, students apply their studio art, art history, and pedagogical knowledge in the development and implementation of visual art program activities for area youth. Provides first-hand opportunities for students to observe, document, analyze, and respond to learning and teaching in the visual arts.

Prerequisite(s): Concurrent enrollment in or previous completion of ARTE 3753 with a grade of C or better.

Required for Art Education majors pursuing certification. May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4750 - Elementary Art Education Practices

3 hours (3;3)

Approaches and structures of teaching art to young children in contemporary contexts. Emphasis on the EC-6th grade schooling. Includes some field experience.

Prerequisite(s): ARTE 3753 with a grade of C or better and admission to both the Art Education BFA program and the College of Education's Teacher Education program is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4760 - Cultural Intersections in Art Education

3 hours

Examination of diverse philosophies and approaches influencing art production and consumption. Emphasis on inclusion of diverse philosophies and approaches to the arts in art teaching. Required for Art Education majors.

Prerequisite(s): CVAD major with Junior Standing and/or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4780 - Secondary Art Education Practices

3 hours (3;3)

Approaches to and structures of teaching art to youth in contemporary contexts. Emphasis on 7-12 grade schooling. Includes some field experience.

Prerequisite(s): ARTE 3753 with a grade of C or better and admission to both the Art Education BFA program and the College of Education's Teacher Education program is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4785 - Teaching Art to Exceptional Learners

3 hours Explores strategies for creating inclusive and accessible art education experiences for exceptional learners, including students with disabilities, gifted students, and those with diverse learning needs. Through a combination of theory, hands-on activities, and case studies, students examine the role of art in supporting cognitive, social, and emotional development. Topics include Universal Design for Learning (UDL), adaptive materials and techniques, individualized instruction, and collaboration with special education professionals. Emphasizing equity and creativity, this course prepares future educators to design meaningful, engaging, and student-centered art experiences that foster self-expression and accessibility for all learners.

Prerequisite(s): Pre-major status in Art Education or consent of department

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4790 - Radical Imaginings in Art and Education

3 hours Exploration of theories and strategies representing radical movements in art and society. Emphasis on teaching practices related to such moments in the art world. Required for Art Education majors.

Prerequisite(s): CVAD major with Junior Standing and/or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTE 4795 - Topics in Art Education

3 hours Selected topics related to the field of art education.

Prerequisite(s): CVAD major with Junior Standing and/or consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

Art History

ARTH 4800 - Methodologies in the History of Art and Visual Culture

3 hours Study of major contributions to the development and practice of art history methodologies and visual arts studies (including theory and criticism). Taught as a seminar, with emphasis on research (bibliographies, papers) as well as class discussion based on weekly assigned readings and presentations.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); must have degree audit on file; sophomore or junior status within major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4801 - Topics in Art History

3 hours Selected topics in the history of art.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4802 - Art of Ancient Greece

3 hours Art of Ancient Greece and the Aegean from circa 3000 BC to the 1st century BC.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4803 - Art of Ancient Rome

3 hours Art of Ancient Rome during the Republican and Imperial eras, from 753 BC to AD 476.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4804 - Medieval Art

3 hours Art from fall of the Roman Empire to late Gothic international style.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4805 - Topics in Medieval Art

3 hours Selected topics in Medieval art from the 3rd century through the 15th century.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4806 - Topics in Renaissance Art

3 hours Selected topics in art of the Renaissance.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4807 - Topics in Seventeenth-Century Art

3 hours Selected topics in 17th-century art.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4808 - Eighteenth-Century Art

3 hours Survey of art from the 18th century.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4809 - Topics in Eighteenth-Century Art

3 hours Selected topics in 18th-century art, with emphasis on new perspectives and current scholarship.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4810 - Nineteenth-Century Art

3 hours Survey of art of the 19th-century.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4811 - Topics in Nineteenth-Century Art

3 hours Selected topics in 19th-century art, with emphasis on new perspectives and current scholarship.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4812 - Modernism and the Visual Arts 1890-1945

3 hours Considers the emergence of "modernism" in the visual arts, exploring the development, interpretation, and use of works of modern art, while examining the historical, social, and cultural conditions of "modernity" in Europe and North and South America, from the late-nineteenth century to 1945.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4813 - Postmodernism and the Visual Arts 1945–Present

3 hours Considers the emergence of "postmodernism" in the visual arts, exploring the development, interpretation, and use of postmodern works, while examining the historical, social, and cultural conditions of "postmodernity" globally, ca. 1945 to the present.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4814 - Theories of Contemporary Art

3 hours Selected theoretical and critical issues in recent art.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4815 - 20th Century Interiors

3 hours Introduction to the design, function and use of interiors and furnishings from the 20th century to the present.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Not offered every term/semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4816 - American Art

3 hours Survey of American art, with an emphasis on new perspectives and current scholarship.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4817 - Topics in American Art

3 hours Selected topics in American art from the 15th century to the present, with emphasis on new perspectives and current scholarship.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4818 - Topics in Latin American Art

3 hours Topics in Latin American art, ranging from the 16th century to 1945.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4819 - Topics in Native American Art

3 hours Selected topics in the arts of Native North America from pre-contact times to the present.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4821 - Topics in Pre-Columbian Art

3 hours Selected topics in the Pre-Columbian art of the Americas.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4824 - Topics in Asian Art

3 hours Selected topics in the arts of Asia.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4825 - Topics in Islamic and/or Middle Eastern Art

3 hours Selected topics in the arts of the Islamic and/or Middle Eastern cultures.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4826 - Pompeii: Art and Life on the Bay of Naples

3 hours Study of the art and architecture of the site of Pompeii in the period between the sixth century BCE and 79 CE.

Prerequisite(s): ART 2350, ART 2360 and ART 2370, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4840 - Topics in the History of Crafts

3 hours Selected topics in the history of crafts.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4841 - History Interiors: Design and Experience

3 hours Introduction to the design, function and use of furniture and interiors from prehistory through the 19th century.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Not offered every term/semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4842 - History of Communication Design

3 hours Provides economic, political, social and technological perspectives on the work that has been created and disseminated by designers of visual communications, particularly over the course of the last 125 years, in a manner that makes their endeavors relevant to the design world of today and to contemporary society. Students gain an understanding of the major movements, styles and figures in the world of visual communication design that have emerged around the world since the latter portion of the 19th century. Significant emphasis is placed on how and why a variety of decision-making processes have informed and influenced the discipline in theory and practice during this span of time, and on the impact that its past developments are having and might have on current trends.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4843 - History of Photography

3 hours Survey of the history of photography, including developments in photographic technologies, practices, theory and analysis.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4844 - History of Prints

3 hours Survey of the history of prints from the Renaissance to the 20th century.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4845 - Topics in the History of Architecture and/or Design

3 hours Selected topics in the history of architecture and/or design.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4846 - Art of the Ancient Near East

3 hours The art of the region of the ancient Near East from ca. 12000 BCE to the 5th century CE.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4847 - Topics in Ancient Mediterranean Art

3 hours Selected topics focused upon the art of the ancient Mediterranean region from the fourth millennium BCE through the 5th century CE.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4848 - Art History Senior Seminar

3 hours Introduction to research methodologies and practices of scholarship relevant to the study of a topic in art history. Delivered as a seminar consisting of assigned readings, class discussion, and oral and written presentations.

Prerequisite(s): ART 2350, ART 2360 and ART 2370; ARTH 4800 with a grade of C or better; 9 hours of advanced art history; senior status within major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4849 - Dress and Fashion in the Early Modern Period

3 hours Introduction to dress and fashion in the pre-modern period.

Prerequisite(s): ART 2350, ART 2360, and ART 2370, with a grade of C or better (may substitute ART 1200X ART 1300 ART 1301 for one of this group); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4850 - Dress and Fashion: Early Modern to Contemporary

3 hours Introduction to dress and fashion from the early modern to the contemporary.

Prerequisite(s): ART 2350, ART 2360, ART 2370; or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4851 - Topics in the History of Architecture

3 hours Selected topics in the history of architecture.

Prerequisite(s): ART 2350, ART 2360 and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ARTH 4852 - Topics in the History of Design

3 hours Selected topics in the history of design.

Prerequisite(s): ART 2350, ART 2360 and ART 2370, with a grade of C or better (may substitute ART 1200X , ART 1300, or ART 1301 for one of this group); or consent of instructor.

May be repeated for credit as topics vary for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

Audiology and Speech-Language Pathology

ASLP 2015 - Nature of Communication Disorders

3 hours Nature and characteristics of speech-language and hearing impairments, including disorders prevalent in multicultural populations. Emphasis on recognition of symptoms, referral sources and suggested treatment programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 2020 - Phonetics

3 hours The international phonetic alphabet, basic articulatory acoustic phonetic principles, pronunciation rules, segmental and suprasegmental features, and in-class practice of phonetic transcription.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3010 - Clinical Methods in Audiology and Speech-Language Pathology I

3 hours Introduction to the processes involved in the assessment, diagnosis and remediation of speech, language and hearing disorders. Factors affecting these processes, such as service delivery, work settings, cultural and linguistic diversity and public policy, are addressed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3025 - Anatomical Bases of Speech and Hearing

3 hours Anatomy and physiology of the articulatory, auditory, phonatory and respiratory systems involved in speech production and perception.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3030 - Speech and Hearing Sciences

3 hours Fundamental processes underlying the production and perception of speech, and the physical and psychological aspects of sound and their measurement.

Prerequisite(s): ASLP 2015, ASLP 2020, MATH 1680 or (or equivalent), BIOL 1112 (or equivalent), PHYS 1270 or PHYS 1315 (or equivalent). Students earning less than a C in any one of these courses will be allowed to retake that course only once.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3035 - Language Development

3 hours Language development from birth through adolescence, with consideration of current theories of acquisition, pertinent research and issues related to cultural diversity.

Prerequisite(s): ASLP 2015, ASLP 2020, MATH 1680 (or equivalent), BIOL 1112 (or equivalent), PHYS 1270 or PHYS 1315 (or equivalent). Student earning less than a C in any one of these courses will be allowed to retake that course only once.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3040 - Introduction to Audiology

3 hours Overview of the field with emphasis on disorders of the auditory system and assessment of hearing sensitivity.

Prerequisite(s): ASLP 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4035 - Speech Sound Disorders

3 hours Introduction to the nature, causes and characteristics of articulation and phonological disorders; principles of evaluation and remediation.

Prerequisite(s): ASLP 2020 and ASLP 3035.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4040 - Introduction to Language Disorders

3 hours Nature, causes and characteristics of language disorders in children and adults. Principles of evaluation and remediation of language problems.

Prerequisite(s): ASLP 3035 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4045 - Basic Rehabilitative Audiology

3 hours Methods of improving communication skills of the hearing impaired through amplification, auditory training and counseling, speech reading and speech and language training.

Prerequisite(s): ASLP 3040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4050 - Neurological Bases of Speech and Hearing

3 hours Structure and function of the human nervous system as related to speech and language learning and usage. Emphasis on the reception and integration of sensation and the production of verbal and non-verbal responses.

Prerequisite(s): ASLP 2015, ASLP 2020, ASLP 3025, BIOL 1112 (or equivalent), MATH 1680 (or equivalent), PHYS 1270 or PHYS 1315 (or equivalent). Students earning less than a C in any one of these courses will be allowed to retake that course only once.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4060 - Clinical Methods in Audiology and Speech-Language Pathology II

3 hours (1;0;2–3) Advanced principles and procedures of clinical service delivery in speech-language pathology and audiology. Includes guided observation, discussion and learning activities with emphasis on integration and application of knowledge from previous ASLP courses.

Prerequisite(s): ASLP 2015, ASLP 2020, ASLP 3010, BIOL 1112 (or equivalent), MATH 1680 (or equivalent), PHYS 1270 or PHYS 1315 (or equivalent). Students earning less than a C in any one of these courses will be allowed to retake that course only once.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4070 - Topics in Speech-Language Pathology and Audiology

3 hours Investigation, analysis and discussion of a significant, contemporary topic in the area of speech-language pathology and audiology.

Prerequisite(s): ASLP 3010 and ASLP 3035.

May be repeated for credit for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4900 - Special Problems

1–3 hours Problem must be approved by department director.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

ASLP 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Aviation Logistics

LGAV 3100 - Introduction to Aviation Industry

3 hours Introduction to the aviation discipline including an investigation of the key role the aviation industry plays in the global transportation network. Emphasis on how aviation management impacts current business practices in a globalizing economy. The importance of aviation transportation networks on business practice is examined.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 3110 - Aviation Maintenance Programs

3 hours Basics of aviation maintenance management. Familiarization with functions and responsibilities of aviation maintenance managers. Topics include managing maintenance; complying with regulatory, legal and technical requirements of aviation maintenance; and defining safety concepts of the aviation maintenance industry. Emphasis on the identification of optimum applications used in aviation maintenance.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 3120 - Aviation Safety Systems

3 hours A safety philosophy and framework to develop the tools and method needed to understand, construct and manage proactive safety systems. Topics include basic concepts of quality management, risk management and process-based risk assessment in aviation. Special attention is given to the tools and analysis needed to establish reliable, repeatable processes that contribute to effective decision making that impact aviation safety.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 3130 - Air Cargo Planning and Control

3 hours Examination of the basics of air cargo operations and the economic principles facing air transportation after deregulation. Topics include how scheduled and unscheduled airlines handle air cargo services including containerization, deregulation, hazardous material handling and marketing. Special emphasis on the economics of air transportation and the analysis of distribution costs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 3140 - Air Passenger Planning and Control

3 hours Management of air passenger operations in the aviation industry including fleet operations and passenger and crew scheduling. Topics include optimizing flight routing, flight networks and fleet diversity; scheduling air/ground crew assignments and gate assignments; and understanding the impact of hub and spoke systems and maintenance locations on air passenger operations. Emphasis on developing analytical tools to effectively manage air passenger operations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 3150 - Transportation Regulation and Trade Compliance

3 hours The legal structure of transportation. Addresses international, federal, local and state statutes as well as the regulatory statutes and case law necessary for the conduct of commercial transportation operations in a globalized economy. Addresses the formulation of transportation and trade policy. Topics include regulatory statutes and compliance, customs and trade restrictions, antitrust, international trade law as it relates to transportation, contracts, insurance and liability, supply chain regulations and case law.

Prerequisite(s): BLAW 3430.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 4100 - Airport and Infrastructure Planning and Control

3 hours Comprehensive inquiry into the management of airport operations. Topics include the history of airports, the roles of government agencies, and the impact of deregulation and wide-bodied aircraft on airports. Special attention is given to the management of the airport planning process including the general Federal Aviation Regulations pertaining to airport management and the role of government airport planning and development.

Prerequisite(s): LGAV 3100, LGAV 3130.

Capstone course to be taken during the last term/semester of course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 4810 - Special Topics in Aviation Logistics

3 hours Investigation, analysis and discussion of a variety of topics that are important in aviation logistics. Topics may include air service development, human factors, air service operations, revenue management, scheduling and network planning, fleet management, economic development, environmental impact, transportation security, congestion management, air traffic flow management, transportation demand and forecasting.

Prerequisite(s): Completion of 9 hours of upper level LGAV and/or LSCM courses.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 4900 - Special Problems

1–3 hours Supervised study on a selected logistics and aviation logistics topic. Typically requires a research paper and significant independent study.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LGAV 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Bachelor of Applied Arts and Sciences

BAAS 3000 - Pathways to Civic Engagement

3 hours Examines the various ways that individuals engage in a democratic society during the 21st century. Students reflect on their involvement, and sense of responsibility to something beyond individual pursuits, and how they can make a difference within the various contexts of neighborhoods, communities, nationally and globally. Exploration of relevant social problems, critical examination and reflection on what it means to be a citizen within these various contexts as well as an examination of personal values and assumptions, assist students in gaining a deeper understanding of themselves relative to the larger social context. Provides opportunities for the development of civic skills and values to enhance the student's capacity to positively impact their community.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

BAAS 3020 - Fundamentals of Inquiry and Discovery

3 hours Focuses on how to evaluate information and apply some of the methods commonly used by social scientists from a variety of disciplines to answer questions about social life. Topics include measuring concepts, determining the most appropriate method of data collection, constructing a survey instrument, selecting a sample, conducting basic data analysis, presenting findings and addressing the ethical and political issues associated with formal research.

Prerequisite(s): Declared applied arts and sciences majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

BAAS 4100 - Managing a 21st Century Career

3 hours In this capstone experience, students will integrate knowledge gained through their core courses, technical backgrounds and advanced focus areas as they develop a plan for engaging as professionals and citizens in a rapidly changing world. Skills in teamwork, social awareness, personal awareness and critical thinking will be further honed as students make connections between knowledge areas and learn to match their skills to careers, now and in the future. They will work with challenging social and business issues, applying decision-making strategies as they develop effective recommendations for action. Students will explore personal branding as they develop their professional identity. Serves as the capstone course for the BAAS degree.

Prerequisite(s): BAAS 3000, BAAS 3020 and senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Behavior Analysis

BEHV 2300 - How Behavior Works

3 hours Behavior is examined as a part of the natural world, with primary focus on principles describing relations between operant behavior and its consequences. The principles of reinforcement, extinction, differential reinforcement and punishment are related to naturally occurring events and to experimental and intervention procedures. Basic measurement concepts introduced.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 2520 - Applied Animal Training and Behavior

3 hours Introduction to the application of behavior analysis in animal training. Gives students hands-on experience applying behavioral science to real animal training. Students learn to apply reinforcement-based strategies to teach new skills, manage behavior, and promote animal welfare. The course emphasizes mechanical training skills, data collection, and ethical considerations in working with companion, working, and zoological animals. A semester-long training project lets students apply what they learn to the animal of their choice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 2800 - Pre-Practicum in Applied Behavior Analysis

1 hour Orientation to practicum and internship expectations in applied behavior analysis. Introduces professional skills, ethics, observation, and documentation. Students complete preparatory assignments and all required paperwork, clearances, and approvals necessary for placement in supervised fieldwork or research experiences.

Prerequisite(s): BEHV 2300 or consent of instructor.

Pass/no pass. Must be completed before enrollment in BEHV practicum or internship.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3000 - Applied Behavior Analysis and Autism I: Basic Techniques

3 hours Describes basic treatment techniques involved in behavioral treatment of children with autism. Students learn behavioral characteristics and etiology of autism and the history of applied behavior analysis in autism. Covers all content areas specified in the RBT Task List (2nd edition); however, students aspiring to attain certification must independently undergo a competency assessment administered by a qualified assessor.

Prerequisite(s): None. BEHV 2300 is recommended but not required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3200 - Science, Skepticism and Weird Behavior

3 hours Utilizes scientific critical thinking to examine the causes of various strange phenomena, including alleged paranormal events, bogus therapies, magic, mystery illnesses, pseudoscience and superstition. Seeks to explain why people believe and do weird things. Provides training in basic scientific thinking about causal explanations and in understanding the scientific method as applied to interesting everyday phenomena.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3250 - Clear Thinking About Weird Behavior

3 hours How to use scientific critical thinking to examine the causes of various strange phenomena, including alleged paranormal events, magic, superstition, mystery illness, bogus therapies, and pseudoscience. It is hoped that students leave this course with an open mind but not so open that their brains fall out. As the second course in a two-course series, course focuses more on the methods of critical thinking, so students leave the class more competent and capable of telling truth from fiction.

Prerequisite(s): BEHV 3200 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3300 - Organizational Behavior Management

3 hours Describes theory and techniques of applying behavior analysis principles to solve performance problems and design more effective workplaces. Focuses on pinpointing critical work behaviors, measuring work performance, analyzing the contingencies responsible for the performance, implementing and evaluating intervention programs involving stimulus control, feedback and reinforcement systems to improve employee performance. Discusses organizational behavior management as a philosophy and as a tool for improving job performance in any organization.

Prerequisite(s): BEHV 2300 or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3400 - Self-Management and Habit Enhancement Through Behavior Analysis

3 hours Uses behavior principles to understand and deal with problems in self-management. Self-assessment of goals, options and necessary trade-offs is followed by a behavior analysis of the nature of the self-management problem. Each student applies behavioral principles to develop and implement an individual self-management plan to reach a particular short-term goal.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3440 - Data Collection and Analysis

3 hours Methods of observing and measuring behavior and for analyzing behavioral data. Topics include dimensional properties of behavior, techniques of direct observation, methods of summarizing data, preparing graphs and analyzing graphed data. Introduces single-subject experimental designs including reversal, multiple baseline and multi-element designs.

Prerequisite(s): BEHV 2300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3550 - Behavior Change Techniques

3 hours Learn how to design and implement behavior-change techniques. Practice behavior-change techniques like prompting and reinforcement schedules in class. Consider applied issues related to using behavior-change techniques in a variety of settings to solve a variety of problems. Complete a portfolio project that requires you to design behavior-change procedures to address a problem.

Prerequisite(s): BEHV 2300 and BEHV 3440 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3660 - Analyzing Behavior: Single Subject Methods

3 hours Introduction to research methods in behavior analysis with an emphasis on single-subject experimental designs. Students learn measurement, data collection, graphing, and visual analysis, and practice evaluating published research. Topics include reversal, multiple baseline, alternating treatments, and changing criterion designs, with attention to reliability, treatment fidelity, and ethical conduct in research.

Prerequisite(s): BEHV 2300; BEHV 3440 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3770 - Building Skills with Behavior Technology

3 hours Teaches a behavior analytic approach to building skills. Reviews the paradigms, concepts and techniques derived from the principles of behavior as applied to building skills. Contrast the learning paradigms of programmed instruction, errorless learning and trial-and-error learning. Introduces the basic composition of behavior intervention programs.

Prerequisite(s): BEHV 2300 and BEHV 3440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3800 - Practicum in Applied Behavior Analysis

3 hours Supervised field experience in applied behavior analysis through practicum, internship, or research placements. Students apply behavioral assessment and intervention skills, demonstrate professional conduct, and complete documentation under faculty and site supervision.

Prerequisite(s): BEHV 2300, BEHV 2800, BEHV 3440; or consent of instructor.

May be repeated for credit with different placements, up to a maximum of 6 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4000 - Applied Behavior Analysis and Autism II: Program Development

4 hours (3;1) Describes curricular, research and development issues involved in the scientist-practitioner model of applied behavior analysis interventions for young children with autism. Students design data collection systems, identify variables affecting behavior and evaluate program efficacy. Students conduct upper-level program design and implementation, and complete extensive practical training.

Prerequisite(s): BEHV 2700X and BEHV 3440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4010 - Functional Analysis and Problem Behavior

4 hours (3;1)

Introduction to the function-analytic approach to the assessment and treatment of problem behavior. Topics include anecdotal assessment, descriptive assessment, experimental analysis, and various courses of treatment derived from functional analyses, with emphasis on the importance of consistency between treatment procedures and the antecedent and consequent variables that affect problem behavior and the acquisition and maintenance of skills.

Course requires a 15 hr lab at an off-campus location.

Prerequisite(s): BEHV 2700X and BEHV 3440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4300 - Ethical and Professional Issues in Applied Behavior Analysis

3 hours Provides students with an understanding of a) professionally responsible decision-making that takes into account client context, individual needs, and the realities of practice in a changing service environment; b) the benefits, complexities, and characteristics of ethical conduct within the science and practice of Applied Behavior Analysis; and c) their own core values and personal assumptions that may influence professional judgment and service delivery. The themes of this course are to promote the value of ethical behavior, to provide guidelines for ethical decision-making, to promote well-being across care recipients of varying skills, needs, backgrounds, and life circumstances, to prepare students to adhere to the ethical code of a Board Certified Assistant Behavior Analyst, and to promote the development of professional behavior including perspective taking, self-reflection regarding factors that may affect clinical interactions and decision-making, constructive and respectful problem solving, and collaboration.

Prerequisite(s): BEHV 2300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4650 - Basic Science of Behavior

3 hours Introduction to the basic science of behavior, with emphasis on laboratory investigations of behavior–environment relations that form the foundation of applied behavior analysis. Students survey core topics in the experimental analysis of behavior, engage with classic and contemporary research, and develop skills for consuming, evaluating, and applying basic science literature to complex environments and applied contexts.

Prerequisite(s): BEHV 2300, BEHV 3440 (with a grade of C or better), and BEHV 3660.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4680 - Behavioral Assessment

3 hours Introduction to behavioral assessment methods in applied behavior analysis with emphasis on skill-based assessment and ecological validity. Covers preference and reinforcer assessments, curriculum- and skills-based assessments, adaptive behavior assessments, and functional behavior assessment. Students learn to select and implement assessments that are ecologically and culturally responsive, ethically sound, and relevant to applied practice and BCaBA-level competencies.

Prerequisite(s): BEHV 2300, BEHV 3440 (with a grade of C or better), and BEHV 3660.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4750 - Capstone Course in Applied Behavior Analysis

3 hours Integrates and extends basic behavioral principles and behavior change procedures to address professional issues including behavioral assessment and goal development, selection of appropriate behavior change procedures, ethical and legal responsibilities, and technology transfer. Prepares students for professional certification in applied behavior analysis.

Prerequisite(s): Prerequisite(s): Senior status and a minimum of 18 hours in behavior analysis and must have completed all required 3000-level BEHV courses; BEHV 3440 with a grade of C or better, BEHV 3550, BEHV 3660 and BEHV 3770.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

BEHV 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Bilingual and English as a Second Language Education

EDBE 2050 - Teaching Multilingual Students

3 hours To understand, conceptualize, and implement pedagogy to address the unique learning needs of multilingual students

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 2060 - Children's and Young Adult Literature for the Elementary Multilingual Classroom

3 hours The integration of Children's and Young Adult (YA) literature for the elementary multilingual classroom.

Requires field hours at an offsite location; course taught in Spanish

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3050 - Teaching English as an Additional Language

3 hours Focuses on the methods and techniques of teaching English as an additional language and assessing emergent bilinguals in elementary and secondary schools. Using asset-based approaches, the course will examine the use of bilingual learners' strengths in the classroom to design and implement meaningful and authentic lessons, assessments and classroom activities that advance the students' knowledge of the English language and the content areas. Also explores educational structures and pedagogical methodologies that promote language and literacy development centered in the students' family and community traditions.

Recommended: EDBE 2050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3060 - Biliteracy in Bilingual Classrooms

3 hours Explores theories, approaches and techniques related to literacy and biliteracy development for multicultural and multilingual children. Emphasizes classroom environments that promote additive bilingualism. Students will gain an understanding of the role of teachers and administrators in the implementation of literacy and biliteracy for multicultural and multilingual children. Students will also explore current research related to methods, strategies, and materials for promoting students' strong literacy and biliteracy skills. Students will apply theories, research, and experience to design native language instruction and assessments in bilingual classrooms.

Recommended: EDBE 2060.

Course taught in Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3470 - Foundations of Bilingual and English as a Second Language Education

3 hours Examination of philosophies and theoretical underpinnings of bilingual and ESL education, including a review of historical antecedents of bilingual education and evaluation of federal and state language policies governing the education of language-minority children. Required for students seeking EC–6 certification with specialization in bilingual or ESL education and for all students seeking 4–8 certification.

May be taken concurrently with EDBE 3480.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives

3 hours Study of the bilingual/ESL learner; perspectives on multiculturalism; discussions of cognitive, social and affective factors impacting second language development; insights into education in a pluralistic society. Three lecture hours a week. Required for students seeking EC–6 certification with specialization in bilingual or ESL education and for all students seeking 4–8 certification.

May be taken concurrently with EDBE 3470.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3600 - Dual Language Bilingual Education: Programs, Policy and Practice

3 hours Examines the rich and complex historical perspectives, inequities at the levels of policy and practice, and types of programs in multilingual education. Specific attention will be placed upon Dual Language Bilingual Education (DLBE) programs due to their rapid growth at the local, state and national levels, promising academic achievement results, and culturally sustaining pedagogies that are being integrated into these programs.

Recommended: EDBE 3060. Concurrent enrollment in EDBE 3650.

Must be admitted to teacher education program: must be taken in Block A; requires field hours at an offsite location; course taught in Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 3650 - Teaching and Learning in the Bilingual Classroom

3 hours Examines research-based strategies, methods and materials to teach the different content areas in the bilingual classroom. Special attention is given to the affective, linguistic and academic needs of bilingual students in grades Pre-K through 5. Using an asset-based paradigm to linguistic diversity, this course acknowledges the value of home and community languages and connects these perspectives to classroom instruction and assessment for bilingual learners.

Recommended: Admission to teacher education program; EDBE 3060. Concurrent enrollment in EDBE 3600.

Must be taken in Block A. Course taught in Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education

3 hours Examination of the organization of curriculum for second language learners with special focus on testing and evaluation procedures appropriate for bilingual and ESL classrooms; study of formal and informal assessment of language proficiency for instructional purposes and use of standardized achievement tests. Required for students seeking EC–6 or 4–8 generalist certification with specialization in bilingual or ESL education.

Prerequisite(s): EDBE 3470, EDBE 3480. Admission to Teacher Education or consent of department.

May be taken concurrently with EDBE 4490.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 4480 - Bilingual Approaches to Content-Based Learning

3 hours (3;0;1.5) Study of appropriate first language usage in bilingual classrooms, focusing on different core curriculum areas, methods and materials and review of language distribution strategies. Focus on responsive instruction that makes use of effective communication techniques and instructional strategies that actively involve students in the learning process. Required for students seeking EC–6 or 4–8 generalist certification with specialization in bilingual or ESL education. Requires 1.5 hours per week field experience in a bilingual education classroom. Language of instruction is Spanish.

Prerequisite(s): EDBE 3470, EDBE 3480. Admission to Teacher Education or consent of department and successful completion of departmental proficiency examination in Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 4490 - Teaching ESL EC–12: Instructional Strategies and Resources

3 hours (3;0;1.5) Study of methods and techniques of teaching English as a second language in elementary and secondary schools. Language development techniques and resources for students at different levels of English proficiency. Focus on helping students to develop strategies (consistent with state standards for language and content learning) that can improve the English language proficiency and grade level subject matter knowledge of English language learners. Required for students seeking EC–6 generalist certification with specialization in bilingual or ESL education or 4-8 certification with mathematics/ESL, science/ESL, social studies/ESL or reading/ELA/ESL or special education.

Prerequisite(s): Admission to teacher education or consent of department.

May be taken concurrently with EDBE 4470.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDBE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Biochemistry

BIOC 2900 - Introduction to Biochemical Research

1–3 hours Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Prerequisite(s): CHEM 1430 (may be taken concurrently) and consent of instructor.

For elective credit only; may not be substituted for required chemistry courses. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 2910 - Introduction to Biochemical Research

1–3 hours Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Prerequisite(s): CHEM 1430 (may be taken concurrently) and consent of instructor.

For elective credit only; may not be substituted for required chemistry courses. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 3621 - Principles of Biochemistry

3 hours Chemistry of biomolecules; amino acids, proteins, enzymes, carbohydrates, lipids, nucleotides, nucleic acids, vitamins and coenzymes; metabolism of biomolecules, generation and utilization of energy.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, must complete foundation requirements for the biology BA. If these requirements are not met, department consent is required.

May not be used in the degree if credit is earned in BIOC 4540 or BIOC 4550.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 3622 - Principles of Biochemistry Laboratory

1 hour (0;4) Laboratory techniques for BIOC 3621.

Corequisite(s): BIOC 3621.

May not be used in the degree if credit is earned in BIOC 4560.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4540 - Biochemistry I

3 hours Chemistry and biochemistry of carbohydrates, lipids, amino acids and proteins, and nucleic acids; biochemical energetics, enzyme catalysis, vitamins and coenzymes, and their interrelationships in energy-producing cycles and pathways.

Prerequisite(s): Completion of Foundation requirements for the declared biological sciences major and C or higher in CHEM 2380. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in CHEM 2380 must be completed. If these requirements are not met, department consent is required.

May not be used in the degree if credit is earned for BIOC 3621. May not be taken more than twice or repeated at the graduate level as BIOC 5540.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOC 4550 - Biochemistry II

3 hours Continuation of BIOC 4540. Metabolic pathways in biosynthesis and degradation of lipids, nucleic acids, proteins and carbohydrates; photosynthesis, nitrogen cycle, and metabolic regulation.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOC 4540. If major is outside of biological sciences, completion of foundation requirements for the biology BA and C or higher in BIOC 4540 is required. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOC 5550.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOC 4560 - Biochemistry Laboratory

2 hours (1;3) Analysis and characterization of amino acids, peptides, enzymes, lipids, nucleic acids, carbohydrates, and metabolic pathways and processes. Techniques include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry.

Prerequisite(s): BIOC 4540 (may be taken concurrently).

May not be used in the degree if credit is earned for BIOC 3622. May not be repeated at the graduate level as BIOC 5560.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOC 4570 - Biochemistry and Molecular Biology of the Gene

3 hours Mechanisms and regulation of genetic expression, chromosome replication, mutagenesis and DNA repair, and gene cloning in prokaryotic and eukaryotic systems.

Prerequisite(s): Completion of Foundation requirements for your declared Biological Sciences major and C or higher in BIOL 3451/ BIOL 3452 or BIOL 3510/BIOL 3520 or BIOC 4540. If major is outside of Biological Sciences, must complete foundation requirements for the Biology BA and C or higher in BIOL 3451/ BIOL 3452 or BIOL 3510/BIOL 3520 or BIOC 4540. If you do not meet these requirements, department consent is required.

Same as BIOL 4570.

May not be used to satisfy minor requirements in chemistry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOC 4580 - Molecular Biology and Biotechnology Laboratory

2 hours (0;5) Experiments in recombinant DNA techniques, gene regulation and other areas of molecular biology.

Prerequisite(s): BIOC 4570 (may be taken concurrently) or BIOL 3770 (may be taken concurrently), or consent of department.

Same as BIOL 4580.

May not be used to satisfy major or minor requirements in chemistry. May not be repeated at the graduate level as BIOC 5580 or BIOL 5580.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOC 4900 - Special Problems

1–3 hours Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4910 - Special Problems

1–3 hours Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4930 - Special Problems

1–3 hours Individual study without laboratory.

Prerequisite(s): Junior or senior standing and approval of supervising faculty member and/or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4940 - Honors Research in Biochemistry

3 hours Advanced original independent research supervised by a faculty member in the biological sciences. For students interested in pursuing careers in research or medicine.

Prerequisite(s): 3.25 GPA or better in the sciences, at least 12 hours of biology and 16 hours of biochemistry/chemistry, junior or senior standing and departmental approval.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4950 - Honors Thesis in Biochemistry

3 hours Continuation of BIOC 4940 involving advanced original independent research culminating in a written report supervised by a faculty member in the biological sciences. The results are written in standard thesis format and presented orally. For students interested in pursuing careers in research or medicine.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOC 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

Biological Sciences

BIOL 1000 - Discover Life Science

3 hours An introduction to topics in the life sciences. Explores different areas of life science research and applications.

Recommended for students interested in majors in the life sciences. Topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 1082 - Biology for Educators

3 hours (3;3) Develop a meaningful and functional command of key biological concepts, an understanding of the interrelationships among all living things, and a correlation between what pre-service teachers are required to learn and what they are required to teach. Includes laboratory. A general biology course with laboratory designated for elementary and middle school education majors seeking teacher certification.

This course may not be used to satisfy the laboratory science requirement for majors in the College of Liberal Arts and Social Sciences.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 1112 - Contemporary Biology

(BIOL 1308/BIOL 1108; BIOL 1408)

3 hours (3;3) Study of major theories and principles of biology pertaining to cell and molecular biology, form and function of tissue and organ systems, and principles of ecology as they relate to animal and plant diversity and evolution; ethical and social issues relating to humans as components of living systems. Includes laboratory.

May not be counted toward a major or minor in biology.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 1132 - Environmental Science

(BIOL 2306/2106; BIOL 2406)

3 hours (3;2) Interdisciplinary approach to understanding basic concepts in environmental science including critical scientific thought, biodiversity, resource management, pollution, global climate change, resource consumption and population growth. Emphasis on how these concepts affect and are affected by human society. Includes laboratory.

May not be counted toward a major or minor in biology.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 1500 - Medical Terminology

2 hours Basic-level medical terminology using a word building system in a programmed learning format. Emphasis is on learning Latin and Greek prefixes and word roots and utilizing these to build medical terms.

Recommended elective to assist students in preprofessional programs leading to working in medicine, physical therapy, and other health care fields or for those wishing to seek advanced degrees relating to human medical research.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 1710 - Biology for Science Majors I

(BIOL 1306; BIOL 1406)

3 hours An integrated approach to cell and molecular biology with an emphasis on biological chemistry, cell structure and function, Mendelian and molecular genetics, evolutionary biology.

Recommended: For students preparing for advanced study in the biological sciences.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 1711 - Honors Biology for Science Majors I

3 hours An integrated approach to cell and molecular biology with an emphasis on biological chemistry, cell structure and function, Mendelian and molecular genetics, evolutionary biology.

Prerequisite(s): High school pre-AP/AP biology and chemistry are highly recommended.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 1720 - Biology for Science Majors II

(BIOL 1307; BIOL 1407)

3 hours An integrated approach to the anatomical, physiological and functional aspects of nutrition, gas exchange, transport, reproduction, development, regulation, response and ecology of microorganisms, plants and animals.

Recommended: For students preparing for advanced study in the biological sciences.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 1722 - Honors Biology for Science Majors II

3 hours An integrated approach to the anatomical, physiological and functional aspects of nutrition, gas exchange, transport, reproduction, development, regulation, response and ecology of microorganisms, plants and animals.

Prerequisite(s): High school pre-AP/AP biology and chemistry are highly recommended.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 1750 - Introductory Biology Research Laboratory I

2 hours (1;5) Research-based course in which students learn experimental approaches and techniques as applied to biological research. Students generate novel biological data that contributes to answering a larger biological research question. Primary focus is on wet lab techniques and explorations.

Prerequisite(s): Concurrent enrollment in BIOL 1710 and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 1755 - Introductory Biology Research Laboratory II

1 hour (1;3) Research-based course in which students learn experimental approaches and techniques as applied to biological research. Students generate novel biological data that contributes to answering a larger biological research question. Primary focus is on wet lab techniques and explorations.

Prerequisite(s): BIOL 1750, concurrent enrollment in BIOL 1720 and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 1760 - Biology for Science Majors Laboratory

(BIOL 1106/1107; BIOL 1406/1407)

2 hours (0;5) Laboratory techniques and research methods for introductory biology.

Recommended: Credit for or concurrent enrollment in BIOL 1710 or BIOL 1711 or BIOL 1720 or BIOL 1722.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 1761 - Honors Biology for Science Majors Laboratory

2 hours (0;5) Laboratory techniques and research methods for introductory biology.

Recommended: Credit for or concurrent enrollment in BIOL 1711 or BIOL 1722.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 2041 - Microbiology

(BIOL 2321; BIOL 2421)

3 hours Survey of the microbial world; classification, ecology, morphology and physiology of eukaryotic and prokaryotic microorganisms.

Prerequisite(s): C or higher in the following: BIOL 1710, either BIOL 1750 or BIOL 1760, and CHEM 1410.

Corequisite(s): Concurrent enrollment in BIOL 2042 is recommended but not required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2042 - Microbiology Laboratory

(BIOL 2121)

1 hour (0;4) Laboratory techniques in general microbiology. Survey of microorganisms including bacteria, fungi, protozoa and algae. Culture, staining and identification of bacteria.

Prerequisite(s): C or higher in the following: BIOL 1750 or BIOL 1760, and BIOL 2041 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 2140 - Principles of Ecology

3 hours Ecological and evolutionary approach to understanding distribution, abundance, dispersion and form-function diversity of organisms. Focus on organisms, their physiological and life history adaptations, and populations.

Prerequisite(s): C or higher in: BIOL 1710, BIOL 1720, and BIOL 1750 or BIOL 1760 or BIOL 1761.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2141 - Ecology Laboratory

1 hour (0;3) Laboratory techniques and research methods for ecology, including field surveys, statistical analysis and report writing.

Prerequisite(s): C or higher in BIOL 2140 (may be taken concurrently).

Required for ecology for environmental science majors and open to all biology majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 2241 - Biology of Higher Plants

3 hours Introduction to basic principles of form, function, ecology and evolution of plants, as well as modern topics related to plant adaptation in changing environments and the exploitation of plants by humans for improved quality of life in developing and developed countries.

Prerequisite(s): C or higher in: BIOL 1710, BIOL 1720; BIOL 1760 or BIOL 1761.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 2251 - Biodiversity and Conservation of Animals

3 hours Focuses on basic principles of form, function, evolution, biogeography and ecology of animals, as well as modern topics related to the theory and practice of conservation.

Prerequisite(s): C or higher in: BIOL 1710, BIOL 1720, and BIOL 1750 or BIOL 1760 or BIOL 1761.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 2301 - Human Anatomy and Physiology I

(BIOL 2301; BIOL 2401)

3 hours Functional anatomy and physiology of the human body including biological chemistry, cell morphology, membrane and tissue physiology, musculoskeletal system and the nervous system.

Corequisite(s): BIOL 2311.

For kinesiology, dance majors; allied health, and biology students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2302 - Human Anatomy and Physiology II

(BIOL 2302; BIOL 2402)

3 hours Functional anatomy and physiology of the human body including the endocrine, digestive, respiratory, cardiovascular, urinary and reproductive systems.

Prerequisite(s): BIOL 2301/BIOL 2311.

Corequisite(s): BIOL 2312.

For kinesiology, dance majors, allied health, and biology students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring and Summer

BIOL 2311 - Human Anatomy and Physiology I Laboratory

(BIOL 2101; BIOL 2401)

1 hour (0;3) Laboratory studies examining the functional anatomy and physiology of the human body including cell morphology, tissue histology, musculoskeletal anatomy and nervous system anatomy.

Prerequisite(s): C or higher in BIOL 2301 (may be taken concurrently).

For kinesiology, dance majors, allied health, and biology students.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2312 - Human Anatomy and Physiology II Laboratory

(BIOL 2102; BIOL 2402)

1 hour (0;3) Laboratory studies examining the functional anatomy and physiology of the human body including the endocrine, digestive, respiratory, cardiovascular, urinary and reproductive systems.

Prerequisite(s): C or higher in BIOL 2302 (may be taken concurrently).

For kinesiology, dance majors, allied health and biology students.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 2700 - Human Evolution and Physical Anthropology

(ANTH 2401 and ANTH 2301/ANTH 2101)

3 hours (3;2) Study of human biological evolution from primate beginnings to the present era. Emphasis is placed upon anatomical and physiological variations and their adaptive significance.

Same as ANTH 2700.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 2900 - Special Problems

1–3 hours Individual readings and laboratory research projects in the biological sciences.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2910 - Special Problems

1–3 hours Individual readings and laboratory research projects in the biological sciences.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 3000 - Comparative Anatomy of Vertebrates

4 hours (3;6) Development, anatomy and phylogenetic relationships of vertebrate organ systems. Laboratory studies of representative vertebrate animals.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3030 - Careers in the Life Sciences

1 hour Career choices and survival skills for the life sciences. Introduction to opportunities for life science majors in academia, industry, teaching and government, and information on preparation for these careers.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 3080 - Physiological Bases of Exercise and Sport

3 hours Applied physiology course of study including bioenergetics, neuromuscular factors, and cardiovascular and pulmonary dynamics during exercise. Emphasis is placed on acute and chronic responses of human physiology to exercise stress.

Prerequisite(s): Completion of the Foundation requirements for your declared biological sciences major and C or higher in either BIOL 3800 or BIOL 4505, or Department consent. If major is outside of Biological Sciences, follow the Foundation requirements for the Biology BA.

Same as KINE 3080.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 3150 - Conservation Biology Laboratory

1 hour (1;0;3) Laboratory and discussion exercises focused on topics related to conservation biology.

Prerequisite(s): C or higher in BIOL 3160 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3160 - Conservation Biology

3 hours Principles and values relating to natural biological resources; ecological concepts applied to resource management and protection of aquatic and terrestrial ecosystems.

Prerequisite(s): Completion of the foundation requirements for your declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3170 - Plants and Human Society

3 hours Relationships of plants to the environment and human activities; impact of plants on human social development, history, economics and religion.

Prerequisite(s): Completion of the Foundation requirements for your declared biological sciences major or Department consent. If major is outside of Biological Sciences, follow the Foundation requirements for the Biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3331 - Biomedical Criminalistics

3 hours Survey of the various forensic sciences with emphasis on direct examination of human remains and directly related biological evidence; e.g. anthropology, pathology, odontology. Students learn how cases arise, i.e. how remains are located, recovered and processed. Supporting biological, clinical and physical sciences will also be covered; e.g. toxicology, entomology, DNA science, forensic geology/palynology and remote sensing.

Prerequisite(s): Consent of Forensic Science Program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 3350 - Human Heredity

3 hours Study of the fundamental principles of human genetics.

Recommended: BIOL 1112 or equivalent.

May not be counted toward a major in biology. For education, kinesiology and health promotion majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3360 - Heredity Lab

1 hour (0;3) Laboratory exercises dealing with basic principles of Mendelian genetics, introductory cytogenetics and probability problems.

Prerequisite(s): BIOL 3350 (may be taken concurrently) or consent of instructor.

May not be used to fulfill the requirements for the BA or BS in biology. For the minor in biology and education, kinesiology, and health promotion majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3381 - Medical Bacteriology

3 hours Bacteria and disease; host-parasite relationships, immunology and epidemiology.

Prerequisite(s): Completion of foundation requirements for the biological sciences major and C or higher in BIOL 2041/BIOL 2042. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/BIOL 2042 must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 3382 - Medical Bacteriology Laboratory

1 hour (0;4) Laboratory techniques in medical bacteriology that emphasize the isolation and characterization of the clinical organisms, including techniques used in their control.

Prerequisite(s): C or higher in BIOL 3381 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 3451 - Genetics

3 hours Genetic structure and inheritance in viruses, bacteria and higher organisms with emphasis on gene biochemistry, Mendelian genetics and population genetics.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 3452 - Genetics Laboratory

1 hour (0;4) Laboratory studies examining classical transmission genetics and modern molecular genetics. Heavy emphasis on experimental crosses and application of molecular genetics.

Prerequisite(s): C or higher in BIOL 3451 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 3510 - Cell Biology

3 hours Structure and function of animal and plant cells with emphasis on cell membranes, cytoplasmic organelles and the nucleus.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA. Concurrent enrollment in CHEM 2380 strongly encouraged.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 3520 - Cell Biology Laboratory

1 hour (0;2.5) Laboratory studies emphasizing the isolation and characterization of subcellular organelles.

Prerequisite(s): C or higher in BIOL 3510 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 3770 - Biotechnology

3 hours Applications of biotechnology in today's society. Emphasis on molecular biotechnology and its applications in industry, agriculture, medicine and forensic science. Students may enroll in BIOL 4580 for the companion laboratory component.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2041/BIOL 2042 and BIOL 3451/BIOL 3452 or BIOL 3350. If major is outside of biological sciences, foundation requirements for the biology BA must be completed and C or higher in BIOL 2041/BIOL 2042 and BIOL 3451/BIOL 3452 or BIOL 3350. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 3800 - Human Physiology

3 hours Cardiovascular, respiratory, renal, gastrointestinal, endocrine, muscular and nervous system functions.

Prerequisite(s): Completion of foundation requirements for your declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 3850 - Introduction to Computational Life Science

3 hours Survey treatment of the applications of computational paradigms in the natural and physical sciences.

Prerequisite(s): Consent of instructor.

Same as CSCE 3850.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 3900 - Advanced Research in Life Sciences

3 hours (2;4) Topics in life science research. Participants conduct authentic research on a life science question in association with a UNT faculty researcher. Research takes place in a laboratory class setting.

Prerequisite(s): Consent of instructor.

May not be repeated.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 3901 - Advanced Research in Microbiology

2 hours (1;3) Topics in microbiology research. Participants conduct authentic research on a microbiology question in association with a UNT faculty researcher. Research takes place in a laboratory class setting.

Prerequisite(s): Departmental consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4000 - Plant Ecology

4 hours (3;4) Role of plants in biological communities. Field and laboratory studies of the major local community types.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4005 - Contemporary Topics in Biology

1–3 hours Contemporary topics in biological sciences. Specific titles vary but may include microbiology, molecular biology, physiology/neuroscience, ecology/environmental science, botany and zoology.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

May be repeated for credit as topics vary. Same topic may not be repeated at the graduate level as BIOL 5005.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4006 - Topics in Forensic Biology

1–3 hours Topics include forensic entomology, forensic toxicology or forensic biology of the human skeleton.

Prerequisite(s): Junior or senior standing or consent of department.

May be repeated for credit as topics vary. Same topic may not be repeated at the graduate level as BIOL 5006.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4030 - Physiological Ecology

4 hours (3;3)

Animals live within a diverse array of habitats, each characterized by its own physical and biological constraints varying in intensity, duration and periodicity. In this course, students will learn various ways in which animals have evolved to meet these challenges and thrive in the context of their natural environments (biotic and abiotic). Specifically, a survey of the physiological, behavioral and biochemical adaptations of animals to environmental factors, including temperature, oxygen, water, salinity, pH and toxic chemicals will be explored.

Prerequisite(s): Completion of Foundation Requirements for the declared biological sciences major and C or higher in either BIOL 2140/BIOL 2141 or BIOL 2251.

If major is outside of Biological Sciences, Foundation Requirements for the Biology, BA and C or higher in either BIOL 2140/BIOL 2141 or BIOL 2251 must be completed. If these requirements are not met, department consent is required.

Meets with BIOL 5230.

May not be repeated for graduate credit as BIOL 5230.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4035 - Behavioral Ecology

3 hours Behavioral ecology investigates how organisms change what they are doing as they interact with other organisms and with their environment. Focuses on understanding the evolution of behavior, primarily with animals. Discusses genetic, hormonal, neurological, developmental, learning, and cultural mechanisms underlying the production of behaviors. Also investigates how survival value and evolutionary history shape behaviors within the contexts of foraging (food acquisition), avoiding predators, mating behavior and systems, habitat selection, social behavior, communication, and parental care.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140/ BIOL 2141 or BIOL 2251. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2140/BIOL 2141 or BIOL 2251 must be completed. If these requirements are not met, department consent is required.

Meets with BIOL 5035.

May not be repeated for graduate credit as BIOL 5035.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4045 - Foundations of Ecological Theory

3 hours Background and concepts of ecological theory are reviewed through the survey of both original and current literature.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140. If major is outside of biological sciences, must complete foundation requirements for the biology BA and C or higher in BIOL 2140. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4050 - Animal Ecology

4 hours (3;4) Role of animals in biological communities. Field and laboratory studies of the ecology of local fauna.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2140 must be completed. If these requirements are not met, department consent is required.

May not be counted toward a BA or BS degree in biology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4051 - Community Ecology

3 hours Structure, dynamics and diversity of biotic communities and ecosystems. Focus on population interactions, niche relationships and processing of matter and energy.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140/ BIOL 2141. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2140/ BIOL 2141 must be completed. If these requirements are not met, department consent is required.

Corequisite(s): BIOL 4052.

May not be repeated at the graduate level as BIOL 5051.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4052 - Community Ecology Laboratory

1 hour (0;4) Field and laboratory exercises on distribution, dispersion, abundance and diversity of organisms and their populations. Focus on quantitative description of biotic communities and ecosystems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140/ BIOL 2141. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2140/ BIOL 2141 must be completed. If these requirements are not met, department consent is required.

Corequisite(s): BIOL 4051.

May not be repeated at the graduate level as BIOL 5052.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 4053 - Introduction to Subantarctic Biocultural Conservation

3 hours Introduction to the subantarctic ecosystems and cultures of Southern South America (geography, climate, ethnography, environmental philosophy and ecology) and exposure to both the practical and theoretical aspects of biocultural conservation, including its interdisciplinary character integrating the sciences and humanities.

Recommended: Upper-level standing in the humanities or sciences.

Same as PHIL 4053.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4054 - Tracing Darwin's Path

3 hours An annual in-depth field course that introduces students to the sub-Antarctic biota, geography, history, cultures and ecosystems of the Cape Horn Biosphere Reserve using the Omora Ethnobotanical Park as a field site that demonstrates the integration of ecological science and field environmental ethics in a novel approach to biocultural diversity.

Prerequisite(s): Upper level academic standing and consent of department.

Same as PHIL 4054.

May not be repeated at the graduate level as BIOL/PHIL 5054.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4055 - Ornithology

3 hours Classification, distribution, ecology, adaptations, and behavior of birds. Emphasis on both local and global species.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Corequisite(s): BIOL 4056.

Meets with BIOL 5055.

May not be repeated at the graduate level as BIOL 5055.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4056 - Ornithology Laboratory

1 hour (0;3) Laboratory emphasis on field identification, behavior, and habitats of birds.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Corequisite(s): BIOL 4055.

Meets with BIOL 5056.

May not be repeated at the graduate level as BIOL 5056.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 4057 - Mammalian Ecology and Evolution

4 hours (3;3)

Emphasis on diversity, morphology, ecological roles and contemporary field and analytical techniques. Identification of mammals to family level using skulls, tracks, scats, pictures, and identification of live individuals to species.

Prerequisite(s): Completion of foundation requirements for the biological sciences major and C or higher in either BIOL 2140 or BIOL 2251. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in either BIOL 2140 or BIOL 2251 must be completed. If these requirements are not met, department consent is required.

Must also enroll in laboratory.

Mandatory field trip attendance, including participation in two-night, overnight field trip to take place over a weekend.

May not be repeated for graduate credit as BIOL 5057.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4070 - Insect Biology

4 hours (3;3) Morphology, physiology, ethology, classification and control of insects and related arthropods.

Prerequisite(s): Completion of the foundation requirements for your declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

May not be repeated at the graduate level as BIOL 5070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4085 - Fish Diversity and Ecology

4 hours (3;3) Emphasis on evolution, diversity, biology, ecology, and management and conservation of fishes. Field techniques and species identification, with focus on fishes of Texas.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in either BIOL 2140/BIOL 2141 or BIOL 2251. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in either BIOL 2140/BIOL 2141 or BIOL 2251 must be completed. If these requirements are not met, department consent is required.

Mandatory field trip attendance.

May not be repeated for graduate credit as BIOL 5085.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4091 - Parasitology

3 hours Biology, ecology and classification of animal parasites; immunology and physiology of host-parasite interaction.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

May not be repeated at the graduate level as BIOL 5091.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4092 - Parasitology Laboratory

1 hour (0;3) Laboratory studies on the basic identification and transmission of common eukaryotic parasites of humans with heavy emphasis on identification of organisms using preserved and fresh preparations and the study of parasite morphology.

Prerequisite(s): BIOL 4091 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4100 - Introduction to Environmental Impact Assessment

3 hours Principles and practices of preparing environmental impact assessments and statements. Addresses how to understand the effects that projects, plans and policies have on the environment and the impact those effects have on specific resources, ecosystems and human communities. Methods for identifying impacts, describing the affected environment, predicting and assessing impacts and selecting the proposed action from a group of alternatives for meeting specified needs are examined.

Prerequisite(s): Completion of the foundation requirements for your declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

May not be repeated at the graduate level as BIOL 5100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4110 - Endocrinology

3 hours Regulation of physiological processes in animals by hormones and related chemical agents.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 3800 or BIOL 4505. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 3800 or BIOL 4505 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4120 - Environmental Chemistry

3 hours Presents a scientific overview of environmental contaminants; their occurrence, sources and impact on humans and the environment.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

May not be repeated at the graduate level as BIOL 5120.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4160 - Advanced Techniques in Microbiology and Molecular Biology

4 hours (1;4) Intensive laboratory exercises in cultivation, analysis and gene transfer in bacterial mutants. Emphasis on techniques for studying macromolecular and enzyme synthesis, preparation and analysis of plasmid DNA, cloning and gene expression.

Prerequisite(s): Completion of foundation requirements for the biological sciences major and C or higher in BIOL 2041 and one of the following courses: BIOC 3621, BIOC 4540 or BIOL 3510. If major is outside of biological sciences, foundation requirements for the biology BA must be completed and C or higher in BIOL 2041 and one of the following courses: BIOC 3621, BIOC 4540 or BIOL 3510. If these requirements are not met, department consent is required.

Corequisite(s): BIOL 4170.

May not be used for advanced biology hours for the biology BA. May not be repeated at the graduate level as BIOL 5160. Offered only in a five-week summer session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4170 - Advanced Techniques in Microbiology and Molecular Biology Laboratory

2 hours (0;3) Continuation of BIOL 4160 lab exercises.

Corequisite(s): BIOL 4160.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4180 - Techniques in Molecular Biology

4 hours (1;4) Advanced molecular biology laboratory methodology. Techniques include gene cloning, plasmid purification, restriction analysis, DNA fingerprinting and DNA sequencing.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2041/ BIOL 2042 and BIOL 3510/BIOL 3520. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/BIOL 2042 and BIOL 3510/BIOL 3520 must be completed. If these requirements are not met, department consent is required.

Corequisite(s): BIOL 4190.

May not be used for advanced biology hours for the BA in biology. May not be repeated at the graduate level as BIOL 5180. Offered summer only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4190 - Techniques in Molecular Biology Laboratory

2 hours (0;3) Continuation of BIOL 4180 lab exercises.

Corequisite(s): BIOL 4180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4201 - Immunology

3 hours

Immune defense mechanisms including immunobiology, immunochemistry, immunogenetics, immune response to infectious agents, allergy and autoimmune diseases.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, must complete foundation requirements for the biology BA. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5201.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4202 - Immunology Laboratory

1 hour (0;3) Laboratory studies on the basic anatomy of the immune system and analytical techniques and experimental design in immunology.

Corequisite(s): BIOL 4201.

May not be repeated at the graduate level as BIOL 5202.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4220 - Neuropsychopharmacology

3 hours Comprehensive examination of the physiological effects of major psychotropic drug classes that affect the central nervous system, including the interactions between neurotransmitter systems and physiology; neuroanatomical pathways and behavior; synaptic functions and behavioral disorders.

Prerequisite(s): Completion of the foundation requirements for your declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the biology BA.

Open to all majors. May not be repeated at the graduate level as BIOL 5220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4230 - Cardio-respiratory Physiology

3 hours Comparative physiology of the cardiovascular and respiratory systems of vertebrates with an emphasis on physiological control mechanisms and interactions of the two systems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2301/ BIOL 2302 or BIOL 3800 or BIOL 4505. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2301/BIOL 2302 or BIOL 3800 or BIOL 4505 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5230.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4240 - Forensic Microscopy

3 hours (2;4) Introduction to microscopic analysis with emphasis on the fundamentals necessary for identification and characterization of trace evidence materials such as glass, hair, fibers, explosives, soil, paint and biological samples.

Prerequisite(s): Consent of forensic science program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4250 - Pharmacology: Biological Basis of Drug Action

3 hours An overview of pharmacology based on principles of drug action; emphasis on drugs by class, and not specific drugs per se. General principles, antibiotics and pharmacology of the autonomic, cardiovascular, central nervous and endocrine systems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. In addition, students must have completed with a grade of C or higher at least one physiology course from the following options: BIOL 2301 and BIOL 2302 or BIOL 3800 or BIOL 4505. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5150.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4260 - Principles of Evolution

3 hours Population genetics; ecological, geographical and historical concepts of evolution.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 3451/ BIOL 3452. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 3451/ BIOL 3452 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5260.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4261 - Principles of Evolution Laboratory

1 hour (0;3) Laboratory and discussion exercises focused on topics related to Evolutionary Biology.

Prerequisite(s): BIOL 4260 (may be taken concurrently).

Same as BIOL 5261.

May not be repeated at the graduate level as BIOL 5261.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4280 - Aquatic Botany

3 hours (2;3) Ecology, identification and management of aquatic plants and algae. Special emphasis on the role of aquatic plants in reservoir and river ecosystems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be

completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5280.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4290 - Marine Biology

3 hours Covers the basics of marine biology with a global approach, using examples from numerous regions and ecosystems worldwide. Highlights interactions of physical and chemical factors and habitat diversity with the biological components of the world's oceans. Environmental topics such as fisheries, mariculture, pollution and conservation.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5290.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4300 - Histology

4 hours (3;3) Microstructure and ultrastructure of animal cells and tissues; relationship of structure and function in tissues and organs. Computer-assisted analysis of tissue structure.

Prerequisite(s): Completion of foundation requirements for your declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4320 - Integrative Molecular Physiology Laboratory

3 hours (2;3) The molecular basis for physiological cardiovascular development, including molecular methods to quantify mRNA for receptors, and measurements of cardiovascular function.

Prerequisite(s): Completion of foundation requirements for your declared biological sciences major and C or higher in BIOL 2301/ BIOL 2302 or BIOL 3800 or BIOL 4505. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2301/BIOL 2302 or BIOL 3800 or BIOL 4505 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5320.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4330 - Developmental Biology

3 hours Mechanisms of development, differentiation and growth in animals at the molecular, cellular and genetic levels. Areas of particular emphasis include transcriptional control mechanisms, embryonic patterning, cell–cell interactions, growth factors and signal transduction, and regulatory hierarchies. Coverage also includes the roles that environmental factors play in development, the medical applications of our knowledge of development and the roles that development plays in evolution.

Prerequisite(s): Completion of Foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5330.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4370 - General Toxicology

3 hours Introduction to the basic principles of toxicology. Focus on absorption, distribution, metabolism and elimination of toxicants; target organ toxicity mechanisms of toxic action; carcinogenesis; and risk assessment.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4375 - Molecular Toxicology

3 hours Survey of toxicology at the biochemical and molecular level to include a discussion of a variety of toxic modes of action, modern techniques used in molecular toxicology, and current toxicological research literature.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4380 - Fundamentals of Aquatic Toxicology

3 hours (2;3) Theory and methodologies used by scientists, regulatory agencies and industry to measure the impact of man's activities on freshwater aquatic ecosystems. The course has its foundations in history, but concentrates on current methodologies and theories.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5380.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4400 - Wetland Ecology and Management

4 hours (3;4) Ecology and management of various types of wetlands with emphasis on the role of aquatic and wetland plants in determining wetland structure and function. Wetland restoration and creation for wildlife habitat or water quality benefits are reviewed.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2140/ BIOL 2141. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2140/ BIOL 2141 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5400.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4420 - Invertebrate Biology

4 hours (3;3) Biology of non-vertebrate animals with emphasis on phylogenetic relationships and anatomical, physiological and behavioral adaptation to varied environments.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5520.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4440 - Stream Ecology

4 hours (3;4) Ecological principles of how stream dynamics influence the biological and hydrologic patterns and processes occurring in stream ecosystems. Laboratory studies are designed to teach techniques and test hypotheses related to environmental assessment.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2041/ BIOL 2042 or BIOL 2140. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/BIOL 2042 or BIOL 2140 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

BIOL 4460 - Eukaryotic Genetics

3 hours Research and theory in eukaryotic genetics with an emphasis in metazoan genetic model systems and human genetics, including chromosome structure, genomic analysis, developmental genetics and diseases.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 3451/ BIOL 3452 and BIOL 3510/BIOL 3520. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 3451/BIOL 3452 and BIOL 3510/BIOL 3520 must be completed. If these requirements are not met, department consent is required. Previous or concurrent enrollment in molecular biology or biochemistry recommended.

May not be repeated at the graduate level as BIOL 5460.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4480 - Medical Genetics

3 hours Human genetics including cytogenetics, immunogenetics, population genetics, molecular genetics and human biochemical genetics.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in either BIOL 3451/BIOL 3452 or BIOL 3350 and either CHEM 2380 or CHEM 3601. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in either BIOL 3451/BIOL 3452 or BIOL 3350 and either CHEM 2380 or CHEM 3601 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5840.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4501 - Bacterial Diversity and Physiology

3 hours Comparative survey of bacteria. Growth, ecology, metabolism, energy transformations, differentiation and adaptive mechanisms.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2041/ BIOL 2042. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/ BIOL 2042 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5501.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4502 - Bacterial Diversity and Physiology Laboratory

1 hour (0;3) Isolation of bacteria from nature. Enrichment methods, morphology, enumeration of bacterial growth and enzymes.

Prerequisite(s): BIOL 4501 (may be taken concurrently).

May not be repeated at the graduate level as BIOL 5502.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4503 - Plant Physiology and Development

3 hours How plants live, grow and interact with their environments from the molecular to the organismal level and with ecosystem considerations. Topics include nutrient acquisition and distribution, biochemistry and metabolism, growth and development.

Prerequisite(s): Completion of foundation requirements for the declared Department of Biological Sciences and C or higher in BIOL 2041/BIOL 2042. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/BIOL 2042 must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5503.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4504 - Plant Physiology Laboratory

1 hour (0;3) Companion laboratory to BIOL 4503.

Prerequisite(s): BIOL 4503 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4505 - Comparative Animal Physiology

3 hours Comparison of structure and physiological function in a wide variety of animals. Emphasis on thermoregulation and on respiratory, circulatory, excretory, endocrine and digestive systems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5505.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4506 - Biology of Extreme Environments

3 hours Lecture- and discussion-based course exploring the biology of, and adaptations to, extreme environments. Drawing examples from animals, plants and microbes, this integrative course explore the biochemical, metabolic, physiological, morphological and behavioral adaptations that have allowed life to thrive at the extreme edges. Course emphasizes development of scientific writing and presentation skills.

Prerequisite(s): Completion of the foundation requirements for the declared biological sciences major or department consent. If major is outside of biological sciences, follow the foundation requirements for the Biology BA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4510 - Animal Physiology Laboratory

1 hour (0;3.5) Experimental studies of physiological function in animals. Emphasis on energetics, membrane transport, thermoregulation, osmoregulation, neurophysiology, cardiovascular, respiratory and muscle function.

Prerequisite(s): BIOL 3800 or BIOL 4505 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4530 - Virology

3 hours Molecular biology of viruses infecting bacteria, plants and animals; interaction of viruses and host cells; viral genetics; replication, pathogenesis, oncology, immunology, chemotherapy and vaccines.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 2041/ BIOL 2042. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/ BIOL 2042 must be completed. If these requirements are not met, department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4540 - Virology Laboratory

1 hour (0;4) Growth and cultivation of bacterial viruses including the production and purification of viral stocks. The use of bacteriophage as model systems to study virus reproduction and cellular metabolism, and as tools in modern molecular biology to study genetic processes.

Prerequisite(s): BIOL 4530 (may be taken concurrently), or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4560 - Aquatic Insects of North America

4 hours (3;4) Ecology, sampling methods, systematics and classification of Nearctic aquatic insects at the family level; use of keys and key terminology in aquatic insect identification.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5570.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

BIOL 4570 - Biochemistry and Molecular Biology of the Gene

3 hours Mechanisms and regulation of genetic expression, chromosome replication, mutagenesis and DNA repair, and gene cloning in prokaryotic and eukaryotic systems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major and C or higher in BIOL 3451/ BIOL 3452 or BIOL 3510/BIOL 3520 or BIOC 4540. If major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 3451/BIOL 3452 or BIOL 3510/BIOL 3520 or BIOC 4540 must be completed. If these requirements are not met, department consent is required.

Same as BIOC 4570.

May not be used to satisfy minor requirements in chemistry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

BIOL 4580 - Molecular Biology and Biotechnology Laboratory

2 hours (0;5) Experiments in recombinant DNA techniques, gene regulation and other areas of molecular biology.

Prerequisite(s): BIOL 4570 (may be taken concurrently) or BIOL 3770 (may be taken concurrently), or consent of department.

Same as BIOC 4580.

May not be repeated at the graduate level as BIOL or BIOC 5580.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4590 - Forensic Molecular Biology Laboratory

3 hours (2;6) Experiments in evidence processing and forensic DNA analysis. Lectures and exercises include DNA extraction techniques, DNA quantification, PCR amplification of polymorphic nuclear and mtDNA loci, and fragment analysis utilizing capillary electrophoresis.

Prerequisite(s): Completion of Foundation requirements for your declared biological sciences major and C or higher in BIOL 4570 or BIOC 4570. If major is outside of Biological Sciences, must complete foundation requirements for the Biology BA and C or higher in BIOL 4570 or BIOC 4570. If you do not meet these requirements, Department consent is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4650 - Environmental Science Field Course

6 hours (3;8) Advanced field course primarily emphasizing the biological, ecological, natural history and philosophical attributes of various habitats or ecoregions. Topics and field experience may vary from desert river systems to alpine limnology to coastal estuaries.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May be repeated as topics vary. The same topic may not be repeated at the graduate level as BIOL 5650 or BIOL 5670.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4700 - Research Methods for Secondary Science Instruction

3 hours (2;4) Techniques used to solve and address scientific inquiry. Design of experiments. Use of statistics to interpret experimental results and measure sampling errors. Ethical treatment of human subjects. Laboratory safety. Mathematical modeling of scientific phenomena. Oral and written presentation of scientific work.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required. EDCI 3500 and EDCI 4000 are highly recommended.

Students seeking secondary certification in mathematics or computer science who have completed the other science requirements of their majors may also enroll. Does not count as an elective toward a major or minor in biology, except for students seeking teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4720 - Sediment Toxicology

3 hours Mechanisms of contaminant transport and fate in freshwater marine sediments and pollutant effects at the individual, population and biotic community levels. Sediment contaminant bio-availability and bioaccumulation into food webs and the scientific aspects of legal control and remediation of hazardous sediments.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5720.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4751 - Neuroscience I: Cells and Circuits

3 hours Neuroscience research strategies, neurons and glia, synaptic transmission, neurotransmitters, developmental brain anatomy, sensory and motor systems.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated at the graduate level as BIOL 5751.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4752 - Neuroscience II: Brain and Behavior

3 hours Brain basis of motivation, sex, emotion, sleep, mental illness, memory; plasticity in developing and adult brain.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required. BIOL 4751 recommended.

May not be repeated at the graduate level as BIOL 5752.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

BIOL 4760 - Neurobiology Laboratory

1 hour (0;3) Vertebrate neuroanatomy and experimental neurobiology using electrophysiological and behavioral methods.

Prerequisite(s): Credit for or concurrent enrollment in BIOL 4751.

Recommended: Credit for or concurrent enrollment in BIOL 4751.

May not be repeated at the graduate level as BIOL 5760.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4800 - Biological Sciences Seminar Series

1 hour A weekly seminar series covering a broad range of biological research topics. Invited speakers are prominent local, regional or national researchers.

Prerequisite(s): Completion of foundation requirements for the declared biological sciences major. If the major is outside of biological sciences, foundation requirements for the biology BA must be completed. If these requirements are not met, department consent is required.

Maximum of 2 hours may be used toward advanced biology electives in the BS Biology degree, but not the BA degree with a major in biology. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

BIOL 4801 - Microbial Genetics

3 hours Genetic structure, inheritance and gene expression in microorganisms and their viruses.

Prerequisite(s): Completion of foundation requirements for a declared biological sciences major and C or higher in BIOL 2041/ BIOL 2042 and CHEM 2380. If the major is outside of biological sciences, foundation requirements for the biology BA and C or higher in BIOL 2041/BIOL 2042 and CHEM 2380 must be completed. If these requirements are not met, department consent is required.

Meets with BIOL 5800.

Genetics course is recommended. May not be repeated at the graduate level as BIOL 5800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4805 - Biological Sciences Capstone Seminar

3 hours Students read, present, and discuss scientific papers related to a weekly topic in the biological sciences. Students will also attend a weekly seminar on the same topic given by invited speakers who are prominent local, regional or national researchers.

Prerequisite(s): Senior standing and completion of foundation requirements for a declared biological sciences major. If the major is outside of biological sciences, student must hold senior standing and complete foundation requirements for the biology BA. If these requirements are not met, department consent is required.

May be used toward advanced biology electives for the BS in biology, but may not be used toward advanced biology electives for the BA with a major in biology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4810 - Bioinformatics Algorithms

3 hours (3;0;1) Introduction to computational problems inspired by the life sciences and overview of the algorithms behind the bioinformatics tools. Exposure to fundamental algorithmic concepts underlying sequence data in computational molecular biology. Formulate biological problems as computational problems and implement algorithms to solve these problems efficiently. Topics include methods to compute sequence alignments (dynamic programming algorithm), motif finding (randomized algorithms), DNA sequence assembly (graph algorithms), protein sequencing data analysis (brute force algorithms), and sequence data analysis (suffix trees and hidden Markov models).

Recommended: CSCE 3850 or departmental consent for non-CSE majors by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

Same as MATH 4810 and CSCE 4810; meets with BIOL 5810.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

BIOL 4815 - Bioinformatics

3 hours Introduction to the interdisciplinary field of Bioinformatics. Databases and genome browser tools. Methods and algorithms for biological sequence analysis. Applications to problems in biology or medicine.

Recommended: Completion of Foundation Requirements for the declared biological sciences major. If major is outside of Biological Sciences, Foundation Requirements for the Biology BA must be completed. If these requirements are not met, department consent is required.

May not be repeated for graduate credit as BIOL 5815.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4820 - Advances in Bioinformatics

3 hours (3;0;1) Use of computational methods to address modern bioinformatics problems. Master the latest advances in bioinformatics and develop data science solutions to analyze large biological datasets and solve important biological questions. Topics include analysis of next-generation sequencing datasets, integration of multi-omics datasets, supervised and unsupervised analysis of biomedical datasets, inference of gene regulatory networks, and genome-wide association studies (GWAS).

Prerequisite(s): CSCE 3850 or departmental consent for non-CSE majors by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor consent in the form.

Same as CSCE 4820; meets with BIOL 5820.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4850 - Biology Laboratory Instruction

3 hours (1;4) Introduces undergraduate students to laboratory instruction. Select students participate in laboratory instruction under the supervision of a faculty member and graduate teaching assistant. Successful completion of the course gives the student valuable teaching experience. Students are required to attend the weekly lab meetings and assist in the instruction of two lab sections per week and to lead instruction of one laboratory class during the semester.

Prerequisite(s): Successful completion of the laboratory and companion lecture course to be taught with a grade of A or B, completion of the biology/biochemistry premajor, consent of laboratory coordinator in charge of the specific laboratory course, and minimum UNT and overall GPA of 2.5.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4900 - Special Problems

1–3 hours

Individual readings and laboratory research projects in biological sciences.

Prerequisite(s): Approval of supervisory faculty member, proposal filed in department advising office prior to registration and junior or senior standing.

Three hours may be applied to advanced biology electives for the BS degree, but not the BA degree in biology. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4910 - Special Problems

1–3 hours

Individual readings and laboratory research projects in biological sciences.

Prerequisite(s): Approval of supervisory faculty member, proposal filed in department advising office prior to registration and junior or senior standing.

Three hours may be applied to advanced biology electives for the BS degree, but not the BA degree in biology. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4920 - Cooperative Education in Biological Sciences

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2041/BIOL 2042 or BIOL 2140 or BIOL 2241 or BIOL 2251 or BIOL 2302/BIOL 2312; student must meet employer's requirements and have consent of department.

May not count toward a major or minor in biological sciences. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4930 - Special Problems

1–3 hours Individual study.

Prerequisite(s): Junior or senior standing and approval of supervising faculty member and/or consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

BIOL 4940 - Honors Research in Biology

3 hours Advanced original independent research supervised by a faculty member in the biological sciences.

Recommended: 3.25 GPA or better in the sciences, at least 20 hours of biology and 16 hours of chemistry, junior or senior standing and departmental approval.

For students interested in pursuing careers in research or medicine. May not be counted towards advanced biology electives for the Bachelor of Arts degree in Biology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4950 - Honors Thesis in Biology

3 hours Continuation of BIOL 4940 involving advanced original independent research culminating in a written report supervised by a faculty member in the biological sciences. The results are written in standard thesis format and presented orally.

Prerequisite(s): BIOL 4940 and consent of department.

For students interested in pursuing careers in research or medicine. May not count toward advanced biology electives in the Bachelor of Arts with a major in biology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

BIOL 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

Biomedical Engineering

BMEN 1300 - Discover Biomedical Engineering

3 hours (2;3) The course focuses on describing, explaining and predicting natural phenomena using a combination of two, 50-minute lectures and a 3-hour laboratory, every week. Students will learn about the origin and history of healthcare practices. Students will learn about human anatomy and physiology and thus be able to describe and explain natural phenomena that occur in the human body. They will also learn to describe naturally occurring action potentials in muscles and nerve cells, and predict the resulting bio-potentials such as electrocardiogram (ECG) and electromyogram (EMG), with reference to homeostasis or a disturbance to it. Students will learn about various systems in the body and how their working can be enhanced while improving the quality of life.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 1400 - Software for Biomedical Engineers

3 hours (2;3) Introduction and exposure to common programming languages used in biomedical engineering practice; develop functions and algorithms for analysis of data; develop basic data acquisition functions.

Prerequisite(s): MATH 1650 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 2200 - Advanced Software for Biomedical Engineers

2 hours (1;3) Biomedical engineers are expected to express and visualize their ideas. Students focus on learning core-modeling skills in this comprehensive, hands-on course. Topics include sketching, part modeling, assemblies, model management, and model simulation techniques for biomedical engineering applications. SOLIDWORKS and COMSOL are used extensively throughout the course.

Prerequisite(s): MATH 1720 or MATH 1830. BMEN 1400 or a similar course as determined by the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 2210 - Biomedical Circuits and Data Acquisition Best Practices

3 hours (2;3) Data acquisition and quantitative analysis of biomedical and physiological signals using LabVIEW; A/D conversion; basic transforms; power supply consideration for biomedical systems; filtering of biomedical signals; electrical circuits and analog representations of physiological systems.

Prerequisite(s): MATH 1720 or MATH 1830

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 2320 - Biomedical Instrumentation I

3 hours (2;3) Introduction to biomedical instrumentation design; design, building and testing of bioinstrumentation circuits including power supplies, analog signal amplifiers and analog filter circuits.

Prerequisite(s): BMEN 1300; BMEN 2210; BMEN 1400 or concurrent enrollment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 2900 - Special Problems in Biomedical Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems. For elective credit only, may not be substituted for BMEN courses.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 2910 - Special Problems in Biomedical Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems. For elective credit only, may not be substituted for BMEN courses.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3000 - Introduction to Biomedical Engineering

3 hours (2;3) Exploratory course in biomedical engineering for students pursuing a BAAS degree. Covers basic concepts of biomedical engineering and their connection with the spectrum of human activity. Serves as an introduction to the fundamental science and engineering on which biomedical engineering is based.

Prerequisite(s): Consent of instructor.

Not for students pursuing a BMEN major or a minor in BMEN.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3001 - Biomedical Engineering Software

4 hours (3;3) Used in biomedical engineering practice; develop functions and algorithms for analysis of data. Specific topics include 3D computer aided design (CAD) modeling, introduction to medical imaging modalities and statistical data analysis using C and/or MATLAB. Applications such as measurements in the cardiovascular system, detection and diagnosis of diseases and monitoring of biomedical devices will be discussed.

Recommended: MATH 1650 with a grade of C or better.

This course is not for students pursuing a BMEN major or a minor in BMEN. It is open to only students pursuing a BAAS degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3310 - Engineering Measurements from Human Systems

3 hours (2;3) Builds upon the concepts of human anatomy and physiology and explains how biomedical engineers can enhance the working of various systems in the body. Presents a number of organ systems including cardiovascular, respiratory, renal, among others. Concepts of cellular bioengineering are also presented.

Prerequisite(s): BMEN 1300, BMEN 2200 and BMEN 2320.

May not be applied to biology majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3311 - Biomedical Signal Analysis

3 hours (2;3) Design and application of analog and digital signal analysis in biomedical engineering; characteristics of biomedical signals; design considerations for analog-to-digital and digital-to-analog circuitry; biomedical signal transformation methods; analog and digital filter design for biomedical signals.

Prerequisite(s): BMEN 2320.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3312 - Introduction to Biomechanics

3 hours (2;3) Introduction into the mechanics of deformable media in biomechanics, including biomaterials and biological tissues with an emphasis in mechano-biology within the context of 1) kinematics, 2)

the concept of stress, 3) equilibrium, 4) constitutive relations and 5) boundary conditions.

Prerequisite(s): BMEN 2320, BMEN 3310, PHYS 1710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3321 - Biomaterials

3 hours Introduction to the properties of natural and man-made materials commonly encountered in biomedicine and biomedical engineering; the basics of material structures, including crystalline and chemical structure, and microstructure; and characteristics of the materials are developed from the microscopic origins.

Prerequisite(s): BMEN 3310, CHEM 1410, PHYS 1710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3350 - Biomedical Transport Phenomena

3 hours Quantitative analysis of transport phenomena in physiological systems. Introduction to bio-fluid mechanics, mass and heat transfer across biological system. Topics covered include fluid statics, mass, heat and momentum conservation, laminar and turbulent flow, microscale and macroscale analytical methods, mass transport with biochemical reactions, applications to transport in tissue and organs.

Prerequisite(s): BMEN 1300, CHEM 1410, PHYS 1710, MATH 3410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 3600 - Biomedical Control Systems

3 hours (2;3) The goal of this course is to provide students with systems modeling and control design experience in physiological systems and biomedical applications. The course introduces open loop and closed loop systems and mathematical transforms necessary for solving control problems. Design techniques including root locus and frequency response methods for compensation are presented. Several specific control problems drawn from medical applications and biological research are discussed with appropriate physiological background being presented.

Recommended: BMEN 2210, BMEN 2320.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4000 - Bioengineering a Superhero

3 hours (3;0) Superheroes have stepped out of popular culture and comic books to enthrall and inspire people all over. This course examines superheroes in the context of bioengineering and explores the possibility of creating a superhero using bioengineering principles and processes. The course provides wide ranging engineering and scientific sources of biomedical engineering principles for assist devices, replacement organs and enhanced capabilities of a superhero. It examines topics ranging from biomechanical, biochemical, instrumentation and tissue engineering principles to applications in cardiovascular, visual and auditory systems in order to enhance the ‘powers’ of a superhero.

Recommended: BMEN 2210; BMEN 2320; BMEN 3312 or concurrent enrollment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4007 - Biomedical Experimental Design and Data Analysis

3 hours An advanced course in the design of experiments and analysis of biological data sets. This course will cover topics that include advanced hypothesis testing, non-parametric models, and power analysis for experimental design. Software tools for interpreting and visualizing data will be covered.

Recommended: MATH 2700.

Meets with BMEN 5007.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4100 - Biomedical Mechatronics

3 hours Modeling and analysis of electrical and mechanical systems (spring mass damper), data acquisition and measurements, sensors, actuators and micro-controller programming. A lab component with emphasis on building electrical circuits, data acquisition using LabVIEW, and integration of sensors, actuators and micro-controller programming (Arduino) to create a mechatronics system.

Recommended: BMEN 2210, BMEN 2320.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4200 - Introduction to Biochemical Engineering

3 hours Introduction to fundamental biochemical engineering concepts primarily to biomedical engineers. This course covers three major topics in biochemical and bioprocess engineering, including enzyme technology (enzyme kinetics, inhibition, stability, and immobilization techniques), cell culture and bioreactor design (cell growth models, media formulation, aseptic techniques, bioreactor design, etc.) and bioseparation for protein purification (centrifugation, filtration and ultrafiltration, chromatography, electrophoresis, etc.).

Prerequisite(s): BMEN 3310 and/or BMEN 3321 or permission of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4212 - Senior Design I

3 hours (2;3) Team biomedical engineering design project involving development of problem statement, alternative approaches for solution, product portfolio, specific system analysis and design.

Prerequisite(s): BMEN 3310, BMEN 3350 , BMEN 3311, BMEN 3312, BMEN 3321; senior classification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4222 - Senior Design II

3 hours (2;3) Continuation of BMEN 4212. Team biomedical engineering design project involving development of alternative approaches for solution, implementation of design techniques and error analysis.

Prerequisite(s): BMEN 4212.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4310 - Biomedical Modeling

3 hours (2;3) Introduction to equations and numerical analysis techniques important to the description of living systems and medical devices; solution alternatives and limitations; compartmental modeling; use of finite element modeling; mathematical models of physiological control systems and devices; the behavior or physiological control systems using both time and frequency domain methods.

Prerequisite(s): BMEN 3321 and senior standing.

Meets with BMEN 5315.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4311 - Biomedical Instrumentation II

3 hours Design of medical systems using graphics programming language of LabVIEW including the designing and programming of three virtual systems as follows: cardiac monitor, electromyogram system for biomechanics and sleep stage analyses from electroencephalograms.

Prerequisite(s): BMEN 3311, BMEN 3312 and senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4312 - FDA Regulations and Quality Control of Biomedical Systems

3 hours Introduction to regulations and best practices recommended by the US Food and Drug Administration (FDA) that pertain to testing and marketing of biomedical devices and systems. Discussion on implementation of best practices for pre-clinical and clinical studies. Introduction to total quality engineering and total quality management as related to medical devices and systems. Building quality into design of products and systems in biomedical engineering.

Prerequisite(s): BMEN 3311, BMEN 3321; and senior classification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4313 - Cellular Engineering

3 hours Cell-based technologies are emerging to support biomedical applications. By modifying DNA, RNA, proteins and other biological components, bioengineers have created new cellular behaviors that can be harnessed for disease preventions, diagnostics and treatments. To continue exploring the use of cell-based approaches for solving biomedical problems, bioengineers are required to gain a molecular understanding on cellular systems. In this course, we will learn about how biological pathways have been targeted for engineering new cellular functions, including transcription, translation, post-translational modification and regulatory mechanisms for controlling these processes. Additionally, we will discuss a range of examples on using engineered cells as medical tools for therapies and diagnostics.

Prerequisite(s): BMEN 3310.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4314 - Tissue Engineering

3 hours Tissue engineering provides new therapies for patients with severe injuries or chronic diseases. The successful development of tissue engineered replacements depends on complementary advances in biomedicine, cell biology, material science and engineering. Comprehensive course designed for senior level study. Covers the fundamental concepts, multidisciplinary approaches and clinical applications of tissue engineering and regenerative medicine. Students gain the fundamental understandings of structure-function relationship in normal and pathological mammalian tissues. Principles of tissue engineering; biological mechanisms; experimental, analytical and computational approaches; animal models, as well as their respective clinical applications are integrated to address problems in current tissue regeneration field.

Recommended: BMEN 3321 and senior classification.

Meets with BMEN 5314.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4319 - Cardiovascular Flows

3 hours (2;3) Blood flow is essential for normal body function. The dynamics of blood flow and the heart functioning as a pump are regulated by, and in turn, regulate many physiological processes in the human body. Understanding the flow of blood in the human body provides valuable insights into human physiology and the interdependence of various organ systems. Cardiovascular diseases disrupt normal blood flow in the human body, affecting many essential processes and organs (giving rise to a plumbing problem!). Students learn about the nature of blood and regulation of blood flow in normal and diseased situations using fundamental principles including physiology, engineering, analytical and computational models, mechanistic approaches and clinical viewpoints. State-of-the-art therapeutic techniques and medical devices currently used by clinicians for detecting and treating cardiovascular diseases also are discussed.

Recommended: BMEN 3310 and BMEN 3350.

Meets with BMEN 5319.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4320 - Biomedical Microelectromechanical Systems

3 hours (2;3) Comprehensive introduction to the science and technology of miniaturization and its applications in biomedical engineering. Methods and tools to create submicron electromechanical and fluidic architectures, with hands-on lab practice and software modeling. Different types of lithography methods will be presented and different techniques such as chemical etching and reactive ion etching will be discussed. Applications in bio micro-electro-mechanical systems (BioMEMS) will also be discussed in different subjects, such as biosensor, microfluidics and BioMEMS for diagnosis and tissue engineering.

Prerequisite(s): BMEN 3311, BMEN 3321.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4321 - Biophotonics

3 hours Fundamentals of biomedical optics; basic engineering principles used in optical therapeutics, optical diagnostics and optical biosensing.

Prerequisite(s): BMEN 3311, BMEN 3312 and senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4325 - Biomedical Nanotechnology

3 hours This course provides an overview of structure and functions of DNA, protein and cell, micro-/nanoengineering technology and characterization methods and serves as an introduction to major areas in biomedical sectors influenced by developments in nanotechnology.

Prerequisite(s): BMEN 3321, senior classification.

Meets with BMEN 5325.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4326 - Principles of Biomolecular Engineering

3 hours To engineer biological systems, it is essential to develop biomolecular components with novel, desirable functions. These components include enzymes, structural proteins, receptors and other macromolecules. Recent advances in biomolecular engineering open many new possibilities in protein design and protein construction. Discusses a wide range of strategies in designing macromolecules, generating libraries of these parts and screening desirable candidates. Additionally, trains students in reading, analyzing and discussing materials from academic research articles.

Recommended: BMEN 3310.

Meets with BMEN 5326

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4900 - Special Problems in Biomedical Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems. For technical elective credit only.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours, but a maximum of 3 credit hours apply to major from BMEN 4900 or BMEN 4910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4910 - Special Problems in Biomedical Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems. For technical elective credit only.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary for a maximum of 6 hours, but a maximum of 3 credit hours apply to major from BMEN 4900 or BMEN 4910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4915 - Biomedical Engineering Research

3 hours Conducting research in a BMEN faculty research laboratory. Research may be experimental or theoretical in nature. BMEN faculty advisor required.

Prerequisite(s): Junior or senior level; 2.0 GPA; major in biomedical engineering. Consent of department required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

BMEN 4920 - Cooperative Education/Internship in Biomedical Engineering

3 hours Supervised field work in a job/co-op/internship, directly related to the student's major field of study or career objective. Offer letter from company or organization is required.

Prerequisite(s): Junior or senior standing; good academic standing in biomedical engineering. Consent of department required

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

BMEN 4950 - Topics in Biomedical Engineering

3 hours Selected topics of contemporary interest in biomedical engineering.

Prerequisite(s): Senior classification, consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential tuition)

Business

BUSI 1200 - Professional Development I-Strategies for Business

1 hour The first of three required classes in the UNT G. Brint Ryan College of Business through which students are introduced to the process of career planning and decision-making. Introduces students by integrating knowledge of self with business concepts and business career opportunities. Introduces students to professional development with a particular emphasis on communication skills, strategic thinking and teamwork.

Prerequisite(s): Open to business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 1340 - Managing the Business Enterprise

3 hours Study of managing the business enterprise with an emphasis on leadership with integrity. Overview of managing business organizations and what is needed to succeed in local, domestic, and global markets.

Prerequisite(s): Freshman or sophomore standing. Cannot be used to meet business foundation, business professional field, or business supporting field requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 3100 - Professional Development II-Critical Thinking and Decision Making in Business

1 hour The second of three required 1 hour professional development courses for the BBA programs. Focuses on crucial desired skills in managers and business leaders.

Prerequisite(s): Open to declared business majors only. Must have completed all pre-business prerequisites. Restricted to G. Brint Ryan College of Business majors.

Corequisite(s): DSCI 3710 or DSCI 3870, depending on major requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 3105 - Professional Development II - Critical Thinking and Decision Making in Business/Coursera

1 hour The second of three required 1 hour professional development courses for the BBA and some BS programs. Focuses on the crucial desired skills in managers and business leaders to use and interpret data. Designed with the Coursera student in mind.

Prerequisite(s): Open to declared Ryan College of Business students with Coursera only. Must be pursuing a declared major in BSGB with Coursera.

Corequisite(s): DSCI 3710 or must have completed DSCI 3710 with a grade of C or better.

Must earn a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 3200 - Professional Development III

1 hour Provides skills and knowledge in several broad areas that are desired by employers. Helps students understand that technical competence in the work environment is not the only important aspect of professional responsibility. Provides informative insights and tools for enhancing career opportunities. In addition to faculty instructions, topics are covered by using former students and other guest lecturers from business, industry and government to expose students to valuable insights from first-hand experiences.

Prerequisite(s): Open to declared business majors only. Must have completed all pre-business prerequisites (ACCT 2010 and ACCT 2020; BCIS 2610; DSCI 2710; ECON 1100 and ECON 1110; ENGL 1310; ENGL 1320 or TECM 2700 (TECM 2700 required for BS/MS accounting); and MATH 1190 or MATH 1710) and BUSI 1200 all with a grade of C or higher.

For Business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 3300 - Professional Leadership Program

1 hour The Professional Leadership Program (PLP) course will cultivate servant leadership in students at the University of North Texas through weekly workshops & connection with industry mentors. PLP is so much more than a student activity. It is a critically fundamental platform for students to obtain the soft skill development required to be successful outside of college and in their chosen career fields, professionalism in representation of PLP on campus, in courses, at external events, engaging with mentors, etc.

Prerequisite(s): 3.25 GPA or better; course may be taken by Junior, Senior, or Graduate students; student is recommended not to exceed 15 hours of course load, recommended not to exceed membership to 2 outside organizations, and recommended not to exceed 20 hours of employment.

Offered to undergraduates and graduates on a case by case basis.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 4700 - Topics in International Business Practices and Policies

3 hours Topics include analysis of issues in accounting, marketing, management, finance, the legal environment, or information systems between international companies and U.S. companies. Students are introduced to the business practices and the role culture plays in transacting business internationally. Taught internationally, focusing on a specific country or region.

Recommended: ACCT 2010 and ACCT 2020.

May be repeated for credit as topics vary, for up to 9 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 4800 - Internship

3 hours Supervised work in a job related to student's career objective. This course can be used to satisfy internship requirements for the BBA Business Integrated Studies and BS General Business degrees.

Prerequisite(s): Student must meet the employer's requirements and have consent of departmental advisor as well as have the internship approved through the Career Center's Handshake process. Student must be in good academic standing with the university and have a declared Business major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BUSI 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Business Computer Information Systems

BCIS 2610 - Introduction to Computers in Business

(BCIS 1305 or BCIS 1405)

3 hours Study of the introductory concepts of computing in business; basic computer components, computer history and programming.

Recommended: MATH 1100 or higher (MATH 1180 preferred).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3610 - Basic Information Systems

3 hours Theory, capabilities, applications, benefits, risks and economics of business computer information systems. Using the computer to solve business problems. Management information systems and computer-based decision support emphasized. Use of standard support application packages.

Prerequisite(s): BCIS 2610 or equivalent with a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3615 - Business Communication for Information Technology Professionals

3 hours Provides students with the knowledge and skills necessary for effective oral and written communication with the focus on communicating technical information about information technologies to business and technical audiences, integrating emerging technologies in business communication, and developing effective communication strategies for technology teams in domestic and international professional settings.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3620 - Mainframe Concepts

3 hours Introduction to COBOL programming in the business environment. Emphasis on the fundamentals of structured program design, development, testing, implementation and documentation of common business-oriented applications using COBOL. Coverage of language syntax, data and file structures editing, report generation, data validation, basic file processing and an introduction to batch and interactive JCL.

Prerequisite(s): BCIS 2610 or equivalent; a grade of C or better in each previously taken BCIS course, or consent of department; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3630 - Object-Oriented Programming for Business

3 hours Introduction of data types, decision structures, loops, inheritance, and object identity as they relate to building business objects and business classes; use of Java programming language depicting the object orientation concepts; use of class libraries and Java packages for business object construction.

Prerequisite(s): BCIS 2610 or equivalent; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of B or better in each previously taken BCIS course; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3680 - Advanced Object-Oriented Programming for Business

3 hours Concepts of enterprise-level Java development utilizing inheritance, polymorphism, and exception handling, using recognized tools like NetBeans and MySQL to learn the advanced concepts of Java, database services, and distributed systems as they relate to building object-oriented applications at the enterprise level.

Prerequisite(s): BCIS 3630 (with a grade of B or better). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3690 - Advanced Mainframe Concepts

3 hours Concepts of advanced COBOL programming: computer utilization, business applications, data structures, information systems research potential and software design on interactive systems. Topics include structured designs, software development tools, advance file processing, utilities, OS and interactive JCL, report writer, debugging, sorting and other advanced COBOL language features.

Prerequisite(s): BCIS 3620. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4110 - Programming for Business Analytics

3 hours Uses programming languages and tools relevant to extracting valuable information out of large volume of data and to discover actionable insights in business contexts. Covers basic programming structure and techniques in a business analytics focused language such as Python and programming packages such as NumPy, Pandas, Matplotlib, and ScikitLearn for business analytics.

Prerequisite(s): DSCI 4520. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS and DSCI course; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4610 - Analysis of Business Information Systems

3 hours An integrated perspective of the problems in today's information systems environment, concentration on contemporary design methodologies and considerations unique to users of computers and information systems. Topics include current systems analysis, modular design, development and implementation, documentation, project planning and task definition, and other systems analysis topics.

Prerequisite(s): BCIS 3610 or equivalent; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4620 - Introduction to Database Applications

3 hours Analysis of file organization techniques and data structures. Consideration of the management of data as a resource. Design of data models and databases in business organizations. Use of database management systems and user-oriented data languages.

Prerequisite(s): BCIS 3610. BCIS 3630 (with a grade of B or better). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4630 - Fundamentals of Information Technology Security

3 hours Introduction to the security systems development life cycle and its effects on application development, software engineering, traditional systems analysis and networking. Examines the various components of information privacy and security.

Prerequisite(s): BCIS 3630 (with a grade of B or better). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each other previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4660 - Introduction to Data Warehousing

3 hours Investigates model-based approaches to the design of data warehouses. Examines their critical role in decision systems for business and industry.

Prerequisite(s): BCIS 3610; DSCI 3710 or DSCI 3870; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4670 - Continuing Seminar in Computer-Based Information Systems

3 hours Seminar on current topics in business computer information systems. Examines state-of-the-art issues associated with the design, development, implementation, control and management of business computer information systems.

Prerequisite(s): BCIS 3630. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4680 - Business Data Communications and Networking

3 hours Development of an understanding of 21st-century data communications and networking technologies; solid conceptual and practical understanding of how current network technologies operate and their relationships with the business enterprise; background for analysis, design, selection and evaluation of hardware, software and support required for a data communications and networking environment.

Prerequisite(s): BCIS 3630 (with a grade of B or better). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4690 - Information Technology Management

3 hours Overview of the management of an organization's information assets. Emphasizes techniques and issues specific to information systems department management; the development, implementation and operation of computer-based information systems; as well as personnel, career management, assessment, legal, ethical, global and societal issues.

Prerequisite(s): BCIS 4610. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department; completion of all other business foundation courses with a grade of C or better and senior standing.

BCIS degree majors must take this course within 12 hours of graduation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4720 - Web-Based Information Technologies

3 hours Provides tools, skills and an understanding of technology, business concepts and issues that surround the use of web-based information systems. In addition to acquiring basic skills for development of web-based information systems, the student develops an understanding of the current practices and opportunities in electronic publishing, electronic commerce, electronic distribution and electronic collaboration. The student explores several problem areas in electronic commerce such as security (authentication, privacy), encryption, safeguarding of intellectual property rights, acceptable use policies and legal liabilities.

Prerequisite(s): BCIS 3630 (with a grade of B or better). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4730 - International Issues of Information Technology

3 hours Addresses contemporary information systems topics with emphasis on the organizational, economic and technological impacts of information systems in a global business environment. Designed to be both interesting and informative for all business students who want to better understand important international IT management issues and their impact on business.

Prerequisite(s): BCIS 3610 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4740 - Administration and Policy in Information Security

3 hours Investigates the major concepts and techniques used in client-server systems architecture and information security, beginning with a strategic planning process for security. Subjects include security practices, security architecture and models, continuity planning and disaster recovery planning.

Prerequisite(s): BCIS 3610. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4750 - Blockchain for Business

3 hours The course offers an introduction to blockchain for business. Much like the internet in its early days, blockchain seems difficult to understand and forecast, but it could become pervasive in the exchange of payments, goods, services, information and interactions between organizations. Beginning with the history of blockchain and its antecedents, we will explore the significance of blockchain in the marketplace starting with existing implementations like bitcoin and other cryptocurrencies, emerging and probable applications, as well as the possibilities for the expanded use of blockchain in business, government and not-for-profit organizations. Topics will include the strengths, weaknesses and technical limitations of blockchain; its legal, regulatory and governance implications; its potential to disrupt industries and organizations; and much more.

Meets with BCIS 5750.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4760 - Introduction to Business Aspects of Digital Forensics

3 hours Presents an overview of the principles and practices of digital investigation. Addresses forensic techniques used throughout an investigation life-cycle. Students learn different techniques and procedures that enable them to perform a digital investigation with a focus on complying with legal and regulatory requirements.

Prerequisite(s): 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4770 - Operating Systems Security Principles for Business

3 hours Provides students with knowledge and skills to secure operating systems to mitigate information security breaches. Addresses basic concepts of Windows and Linux operating systems components as they relate to information security and includes various concepts and tools at the disposal of security administrators to secure workstations and servers.

Prerequisite(s): BCIS 3630 (may be taken concurrently). 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4780 - Cloud Computing for Business

3 hours Explores the management and strategic implications of cloud computing within organizations. Covers fundamental cloud concepts, cloud service models, deployment strategies, and the management of cloud resources. Insights into cloud economics, security, governance, and compliance issues, as well as the decision-making processes involved in adopting and managing cloud solutions. Also focuses on the practical aspects of cloud management, including performance monitoring, capacity planning, and the optimization of cloud resources.

Prerequisite(s): BCIS 3610 or equivalent; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4800 - Internship

1–3 hours Supervised work in a job related to the student's career. A maximum of 3 hours may be applied to elective work in the professional field with departmental approval.

Prerequisite(s): BCIS 3620 or BCIS 3630; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); student must meet the employer's requirements, and have consent of the department chair or BCIS undergraduate coordinator.

Different section numbers may be used for different credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4900 - Special Problems

1–3 hours Prerequisite(s): ECON 1100, ECON 1110, MATH 1100. BCIS 2610 or equivalent; ACCT 2010 and ACCT 2020 with a grade of C or better; MATH 1190 or equivalent; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course or consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4910 - Special Problems

1–3 hours Prerequisite(s): BCIS 2610 or equivalent; ACCT 2010 and ACCT 2020 with a grade of C or better; ECON 1100 and ECON 1110; MATH 1100; MATH 1190 or equivalent; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BCIS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Business Law

BLAW 2000 - Personal Law

3 hours Consumer-oriented study of the principles of personal law. Student participation required in resolving problems associated with the family, home and vehicle ownership, crimes, negligence, employment, death (including wills and estates), taxation and an individual's rights as a consumer. Recommended for all students, regardless of major field of interest.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of the Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 3430 - Legal and Ethical Environment of Business

3 hours Historical, economic, political and ethical bases of contracts and sales, including the Uniform Commercial Code, and the impact of regulatory agencies on business enterprise.

Prerequisite(s): PSCI 2306 and PSCI 2305, or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 4450 - Corporation Law

3 hours A course developing the law concerning the powers, duties and responsibilities of corporate managers to their organizations, to investors, to creditors, to the state, and to the general public under state corporation codes and state and federal securities legislation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 4770 - Real Estate Law and Contracts

3 hours Study of the legal principles governing real estate transactions with an emphasis on promulgated contracts. Topics include contract law, estates in land, types of ownership, deeds, mortgages, title insurance, agency, and homestead.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 4790 - Property Management Law

3 hours Study of the local, state, and federal laws, regulations and cases that impact the professional management of real property. Particular emphasis is given to the legal and ethical issues relative to residential property management. The landlord/tenant relationship is analyzed as well as issues concerning employees, tort liability, risk management, various types of government regulation, fair housing, and eviction. Texas Apartment Association lease contracts and other forms are reviewed.

Prerequisite(s): BLAW 3430.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

BLAW 4951 - Honors College Capstone Thesis

3 hours A major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Career Readiness

UCAR 1000Z - Career Readiness Seminar I

0 hours The career readiness first-year seminar assists students in making connections between their learning in the degree program and potential careers they may pursue after graduation.

P/NP only.

UCAR 2000Z - Career Readiness Seminar II

0 hours A second year seminar for sophomores where students explore their career interests and move further along their career development pathway; inclusive of skills, connecting majors to careers, internship, and professional communications modules.

Pass/no pass only.

Chamber Music

MUCM 3510 - String Chamber Music

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3520 - Woodwind Chamber Music

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3530 - Brass Chamber Music

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3540 - Percussion Chamber Music

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3550 - Jazz Chamber Music

1 hour (0;2) Small group ensemble performance and rehearsal.

Prerequisite(s): MUJS 2370 with C or better.

Recommended: Completion of Upper Division Exam on the applied instrument.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3560 - Mixed Ensemble Chamber Music

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCM 3617 - Percussion Ensemble

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3621 - Guitar Ensemble

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCM 3630 - Harp Ensemble

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Chemistry

CHEM 1210 - Problem Solving in Chemistry

3 hours Intended to serve as a support course for CHEM 1410. Topics covered include applied math skills, problem solving strategies, study skills and test preparation, as well as other topics that are intended to help students be successful in General Chemistry, as well as other STEM courses.

Prerequisite(s): C or better in MATH 1100 or equivalent.

Corequisite(s): CHEM 1410.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1310 - Mathematical Introduction to General Chemistry

3 hours Scientific calculation, significant figures, conversion factors, atomic structure, periodicity, compounds, stoichiometry, solutions and molarity, dimensional analysis, and Ideal Gas Laws. Intended for students who need additional math preparation in order to succeed in General Chemistry. Recommended for BA Biology majors and other students whose degrees require General Chemistry but not Calculus.

Prerequisite(s): Texas Success Initiative (TSI) math compliant.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1360 - Context of Chemistry

3 hours Fundamentals of chemistry for students who are not science majors. Applications of chemistry to its role in the world. Topics include historical and philosophical development of modern chemistry, the environment, energy, industrial and economic development, modern materials, and popular perspectives of chemistry.

May not be counted toward a major or minor in chemistry.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1400 - First Year Seminar in Chemistry

1 hour A First Year Experience course that aims to help chemistry students make a successful transition to the collegiate academic environment. Covers general expectations and strategies for student success as well as topics specific to chemistry coursework and career development.

Prerequisite(s): Freshman standing; major, minor or pre-major in chemistry; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1410 - General Chemistry I for Science Majors

(CHEM 1311)

3 hours (3;0;1*) Fundamental concepts, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions and compounds of representative elements.

Prerequisite(s): C or better in MATH 1100 or MATH 1180, B or better in CHEM 1310, or equivalent.

Corequisite(s): CHEM 1430.

*This hour is a problem-solving session.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 1412 - General Chemistry I for the Honors College

3 hours (3;0;1*) Nature of chemistry, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions, compounds of representative elements, historical context, practical consequences.

Prerequisite(s): C or better in MATH 1100 or MATH 1180, B or better in CHEM 1310, or equivalent.

Corequisite(s): CHEM 1430.

*This hour is a discussion session.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1413 - Honors General Chemistry I

3 hours (3;0;1*) Fundamental concepts, states of matter, periodic table, structure, solutions and compounds of representative elements.

Prerequisite(s): C or better in MATH 1100 or MATH 1180, B or better in CHEM 1310, or equivalent. High school chemistry or equivalent is strongly recommended.

Corequisite(s): CHEM 1430.

*This hour is a problem-solving session.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1415 - General Chemistry for Engineering Majors

3 hours (3;0;1*) Fundamental concepts, atomic structure, periodic table, stoichiometry, states of matter, chemical bonding, new materials, solutions, thermodynamics, reaction rates, equilibrium, electrochemistry, polymers and nuclear reactions.

Prerequisite(s): C or better in MATH 1650 or equivalent.

Corequisite(s): CHEM 1435.

*This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1420 - General Chemistry II for Science Majors

(CHEM 1312)

3 hours (3;0;1*) Thermodynamics, reaction rates, equilibrium, acid/base chemistry, electrochemistry, radioactivity and nuclear reactions.

Prerequisite(s): C or better in CHEM 1410, CHEM 1412 or CHEM 1413 or consent of department.

Corequisite(s): CHEM 1440.

*This hour is a problem-solving session.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

CHEM 1422 - General Chemistry II for the Honors College

3 hours (3;0;1*) Thermodynamics, reaction rates, equilibrium, electrochemistry, organic chemistry, polymers, radioactivity and nuclear reactions, historical context, practical consequences.

Prerequisite(s): C or better in CHEM 1412 or CHEM 1413 (or CHEM 1410with grade B or better and permission of the department), MATH 1100 or equivalent, admission to Honors College.

Corequisite(s): CHEM 1440.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1423 - Honors General Chemistry II

3 hours (3;0;1*) Thermodynamics, reaction rates, equilibrium, electrochemistry and nuclear chemistry. This course is strongly advised and may be required for students planning to engage in undergraduate chemical research.

Prerequisite(s): C or better in CHEM 1413 or consent of department.

Corequisite(s): CHEM 1440.

*This hour is a problem-solving session.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1430 - Laboratory Sequence for General Chemistry I

(CHEM 1111)

1 hour (1;3) Laboratory techniques, weighing, errors and significant figures, identification and purification of substances, and elementary quantitative analysis.

Corequisite(s): CHEM 1410 or CHEM 1412 or CHEM 1413.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 1435 - General Chemistry Laboratory for Engineering Majors

1 hour (1;3) Laboratory techniques; application of statistical methods to laboratory data; chemical and physical property measurements; stoichiometric analysis; measurement of thermodynamic, electrochemical and kinetic data.

Prerequisite(s): CHEM 1415 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 1440 - Laboratory Sequence for General Chemistry II

(CHEM 1112)

1 hour (1;3) Quantitative, gravimetric and volumetric analyses; coordination compounds.

Prerequisite(s): C or better in CHEM 1430.

Corequisite(s): CHEM 1420 or CHEM 1422 or CHEM 1423.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 2370 - Organic Chemistry I

(CHEM 2323)

3 hours (3;0;1*) Structure, nomenclature, occurrence and uses of main classes of organic compounds; functional groups and their interconversion; character of chemical bonding; stereochemistry; structure and reactivity; acid/base reactions, resonance, inductive and steric effects; reaction mechanisms.

Prerequisite(s): "C" or better in CHEM 1415, CHEM 1420, CHEM 1422, or CHEM 1423.

Corequisite(s): CHEM 3210.

*This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

CHEM 2380 - Organic Chemistry II

(CHEM 2325)

3 hours (3;0;1*) Nucleophilic and electrophilic reaction mechanisms; molecular rearrangements; radical reactions; organic synthesis; absorption spectra of organic compounds of biological interest.

Prerequisite(s): CHEM 2370 with a grade of C or better.

Corequisite(s): CHEM 3220.

*This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 2900 - Introduction to Chemical Research

1–3 hours

Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Prerequisite(s): CHEM 1430 (should be taken concurrently) and consent of instructor.

For elective credit only; may not be substituted for required chemistry courses. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 2910 - Introduction to Chemical Research

1–3 hours

Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Prerequisite(s): CHEM 1430 (should be taken concurrently) and consent of instructor.

For elective credit only; may not be substituted for required chemistry courses. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Recommended: Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3010 - Opportunity and Responsibility in Chemistry

3 hours The course is designed to introduce you to chemistry-centered opportunities in the workplace, by exploring different applications of chemistry, areas of research, professionalism and ethical considerations in scientific pursuits. It will prepare you for pursuing the myriad opportunities available to you as an undergraduate chemistry major.

Corequisite(s): Concurrent enrollment in CHEM 2370 is preferred, but not required.

Recommended: C or better in CHEM 1420/CHEM 1440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3210 - Organic Chemistry Laboratory I

1 hour (1;3) Separations and Synthesis. Organic preparations; techniques of recrystallization, distillation, solvent extraction, separation of mixtures, chromatography and spectroscopic methods.

Prerequisite(s): "C" or better in CHEM 1420 and CHEM 1440.

Corequisite(s): CHEM 2370 or completed prior with a "C" or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3220 - Organic Chemistry Laboratory II

1 hour (1;3) Synthesis and Analysis. Organic syntheses and systematic identification of unknown organic compounds utilizing classical "wet" and spectroscopic analytical methods.

Prerequisite(s): "C" or better in CHEM 2370 and CHEM 3210.

Corequisite(s): CHEM 2380 or completed prior with C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3230 - Physical Chemistry Laboratory I

1 hour (1;3) Physical Measurements. Treatment of experimental data. Calorimetry, gases, vacuum line techniques, phase and chemical equilibria, polarimetry, and kinetics.

Prerequisite(s): CHEM 3510 (may be taken concurrently). C or better in CHEM 1420/CHEM 1440; C or better in MATH 1720 or MATH 1820 and co-enrolled in MATH 1830; and C or better in PHYS 1410/PHYS 1430 or PHYS 1510/PHYS 1530 or PHYS 1710/PHYS 1730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3240 - Physical Chemistry Laboratory II

1 hour (1;3) Advanced Physical Measurements. Spectrophotometry, lasers, atomic and molecular spectroscopy.

Prerequisite(s): CHEM 3520 (may be taken concurrently). C or better in CHEM 3510/CHEM 3230.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3330 - Forensic Science Analysis

4 hours (3;3;0) This course is designed to provide the student with a comprehensive understanding of today's
crime laboratories and investigative techniques used in the proper collection, preservation, and
analysis of evidence.

Prerequisite(s): Consent of Forensics Program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3451 - Quantitative Analysis

3 hours Statistical treatment of data; theory and principles of sampling and transfer techniques, gravimetric, and volumetric methods; introductory instrumental analysis.

Prerequisite(s): C or better in CHEM 1420, CHEM 1422 or CHEM 1423.

Corequisite(s): CHEM 3452.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

CHEM 3452 - Quantitative Analysis Laboratory

1 hour (0;4) Statistical treatment of data; sampling and transfer techniques; selected gravimetric and volumetric methods; introductory instrumental analysis.

Prerequisite(s): C or better in CHEM 1420/CHEM 1440.

Corequisite(s): CHEM 3451 or completed prior with C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 3510 - Physical Chemistry I

3 hours (3;0;1*) Thermodynamics, kinetic theory, solutions and phase equilibria, chemical equilibrium, photochemistry and chemical kinetics.

Prerequisite(s): C or better in CHEM 1420, CHEM 1422 or CHEM 1423; and C or better in MATH 1720 or C or better in MATH 1820 and co-enrolled in MATH 1830; and C or better in PHYS 1410, PHYS 1510, or PHYS 1710.

Corequisite(s): CHEM 3230 with the exception of declared biochemistry majors.

*This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3520 - Physical Chemistry II

3 hours (3;0;1*) Quantum mechanics: atomic structure and molecular orbital theory. Spectroscopy: microwave, infrared, electronic, photoelectron, electron spin resonance and NMR.

Prerequisite(s): C or better in CHEM 3510; and C or better in MATH 1720 or MATH 1830; and C or better in PHYS 1420 or PHYS 1520 or PHYS 2220.

Corequisite(s): CHEM 3240 with the exception of declared biochemistry majors.

*This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 3530 - Physical Chemistry for Life Science

4 hours Fundamental principles of physical chemistry applied to biological systems; thermodynamics, equilibrium and bioenergetics, ionic equilibria, pH, buffers, ionic strength, and electrical properties of amino acids and proteins; kinetics, enzyme catalysis and inhibition; physical properties of biological macromolecules and transport properties in living systems.

Prerequisite(s): C or better in one of the following: CHEM 1420, CHEM 1422 or CHEM 1423.

For chemistry (BA) and life science majors, and preprofessional students.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

CHEM 3601 - Organic Chemistry

3 hours (3;0;1*) Survey of organic chemistry; types of chemical bonding, functional groups, synthesis and reactions; aliphatic, aromatic and heterocyclic compounds; carbohydrates, lipids and proteins.

Prerequisite(s): CHEM 1420 or CHEM 1423.

For medical technology, merchandising and hospitality management, and secondary education students. *This hour is a problem-solving session.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3602 - Laboratory for Organic Chemistry

1 hour (0;3) Prerequisite(s): CHEM 3601 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4110 - Chemistry Laboratory Instruction

3 hours (1;4) Introduces undergraduate students to laboratory instruction. Select students participate in laboratory instruction under the supervision of a faculty member and graduate teaching assistant. Successful completion of the course gives the student valuable teaching experience. Students selected are required to attend the weekly lab meetings and assist in the instruction of two lab sections per week and are required to lead instruction of one laboratory class during the semester.

Recommended: Successful completion of the laboratory and companion lecture course to be taught, with a grade of A or B. Must have a minimum UNT and overall GPA of 2.5. Approval from the laboratory coordinator in charge of the specific laboratory course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4351 - Forensic Chemistry

3 hours (2;6) Analytical chemistry applied to forensic science. Statistics and error analysis of drugs and physical evidence. Identification and analysis of forensic evidence through absorption and transmission spectroscopy, chromatography (TLC, HPLC, GC), electrophoresis, mass spectrometry, and atomic emission and analysis.

Prerequisite(s): C or better in each of the following: CHEM 2380, CHEM 3451 and CHEM 3452.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

CHEM 4360 - Principles of Forensic Science

3 hours (3;1) This course is designed to reinforce knowledge of forensic techniques and skills critical to evidence preservation and collection. It will also provide students with an understanding of professional ethics in forensic science and courtroom techniques.

Prerequisite(s): C or better in CHEM 3330.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4530 - Materials Chemistry

3 hours Application of chemical principles to understand the general behavior of materials. Course includes semiconductors, metals, catalysts and “nano-designed” materials (e.g. quantum wells).

Recommended: Concurrent enrollment in CHEM 3520 or equivalent, or consent of department.

May not be repeated at the graduate level as CHEM 5530.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4610 - Advanced Inorganic Chemistry

3 hours Electronic structure of atoms and molecules; structure and thermodynamic properties of binary compounds; inorganic nomenclature; introductory survey of bonding, stereochemistry and reactivity of inorganic and organometallic complexes.

Prerequisite(s): CHEM 2370 with a C or better.

Recommended: CHEM 3520 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4620 - Advanced Inorganic Chemistry Laboratory

1 hour (1;3) Inorganic and organometallic preparations and multistep syntheses; spectroscopic characterization of diamagnetic and paramagnetic compounds; actual laboratory time to vary depending on the nature of the assignment; students may need to return to the laboratory at unscheduled times to complete experimental projects.

Prerequisite(s): CHEM 4610 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4631 - Instrumental Analysis

3 hours Principles and theory of chemical analysis utilizing absorption spectroscopy in ultraviolet, visible and infrared regions, nuclear and electron spin resonance, mass spectrometry, chromatography, polarography and other advanced instrumental techniques.

Prerequisite(s): C or better in CHEM 3451 and CHEM 3452.

Corequisite(s): CHEM 4632.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

CHEM 4632 - Instrumental Analysis Laboratory

1 hour (0;4) Identification and analysis of compounds through absorption spectroscopy in ultraviolet, visible and infrared regions, nuclear and electron spin resonance, mass spectrometry, chromatography, polarography and other advanced instrumental techniques.

Corequisite(s): CHEM 4631 or completed prior with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

CHEM 4660 - Introduction to Computational Chemistry

3 hours (2;3) Introduction to the use of modern computational methodologies for the study of physical properties and chemical reactions of importance in chemistry, biochemistry, molecular biology and environmental sciences.

Prerequisite(s): C or better in CHEM 3520 (may be taken concurrently) or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4670 - Introduction to Medicinal Chemistry

3 hours Fundamentals of medicinal chemistry. General aspects of drug action and rational drug design. Drug development, antibacterial agents, analgesics, antidepressants and anticancer agents.

Prerequisite(s): C or better in CHEM 2380 or CHEM 3601 (with consent of department).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4680 - Introduction to Chemical Applications of Machine Learning

3 hours Introduces the usage of machine learning methods and artificial intelligence for studying and modeling chemical systems of importance in chemistry, biochemistry, and material and environmental sciences, including prediction of physical and molecular properties and chemical reactivity.

Prerequisite(s): C or better in CHEM 3520 (may be taken concurrently) or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4700 - Research Methods for Secondary Science Instruction

3 hours (2;4) Techniques used to solve and address scientific inquiry. Design of experiments. Use of statistics to interpret experimental results and measure sampling errors. Ethical treatment of human subjects. Laboratory safety. Mathematical modeling of scientific phenomena. Oral and written presentation of scientific work.

Prerequisite(s): 16 hours of chemistry, completion of freshman and sophomore science courses required for certification and consent of department. EDCI 3500 and EDCI 4000 are highly recommended.

Students seeking secondary certification in mathematics or computer science who have completed the other science requirements of their majors may also enroll. Does not count as an elective toward a major or minor in chemistry, except for students seeking teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4900 - Special Problems

1–3 hours A written report is required each term/semester.

Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

May be repeated for credit, not to exceed 3 hours each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4910 - Special Problems

1–3 hours A written report is required each term/semester.

Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

May be repeated for credit, not to exceed 3 hours each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4912 - Undergraduate Research Capstone Experience

3 hours Undergraduate students conduct research in a laboratory under the direction of a graduate research group. A written report and an oral presentation are required.

Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4920 - Cooperative Education in Chemistry

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): 12 semester hours of credit in chemistry; student must meet employer's requirements and have consent of the department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4930 - Selected Topics in Chemistry

3 hours Topics of current interest, which vary from year to year.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4940 - Chemistry Seminar

1 hour Colloquia covering current topics in chemistry.

Prerequisite(s): Chemistry major with senior standing.

May be repeated for credit. May not be used to meet degree requirements for chemistry major or minor. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4960 - Science Institute (Chemistry)

1–6 hours For students accepted by the university in special institute courses.

May be repeated for credit, not to exceed 6 hours in each course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

CHEM 4970 - Science Institute (Chemistry)

1–6 hours For students accepted by the university in special institute courses.

May be repeated for credit, not to exceed 6 hours in each course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

College of Applied and Collaborative Studies

CACS 2000 - Applied Professional Communications

3 hours Students integrate core knowledge and skills with theories of professional communication—both face-to-face and digital—in a collaborative setting. Study and application of communication within a professional context. Special emphasis given to communication competencies in presentations, dyads, and teams, during which students will explore strategies of extemporaneous speaking, conflict management, storytelling, and spontaneous communication. Apply these skills in a project-based learning environment.

CACS 2030 - Creativity and Complex Problems

3 hours Introduces foundational concepts of systems complexity and the Creative Problem-Solving approach (CPS) to understanding and solving complex problems. Focuses on understanding when the CPS approach can be used successfully and how the progression from one stage of CPS to the other can be altered depending on our goals and needs. Learn various creative thinking heuristics used to define problems, generate ideas, and develop solutions; apply the heuristics to solve ill-defined, complex problems in a collaborative setting.

CACS 2040 - Team Development

3 hours Introduces the foundational elements of team development, organizational behavior, and leadership with successful business or project outcomes. Develops a working knowledge of how to build your team, improve teamwork and collaboration, and sustain team performance through continuous learning and improvement. Learn best practices for composing a team, aligning individual and team goals and tasks, and managing divergent perspectives. Also learn how to establish roles, build structures, and manage decision making to harness the productive potential of teams while mitigating risks and traps of teamwork.

CACS 3000 - Applied Professional Communication: Theory and Practice

3 hours Study and applications of research and theory in understanding communication within a professional context. Special emphasis given to communication competencies in presentations, dyads, and teams, during which students research and apply concepts in conflict management, storytelling, persuasion in professional contexts, and negotiation. Students apply these skills in a project-based learning environment.

Student may only receive credit for CACS 2000 or CACS 3000, but not both. This depends on your degree plan and prior credits, so please check with your advisor prior to registration.

CACS 3010 - Applied Project Management: Approaches and Practice

3 hours Students integrate university core knowledge and skills with theories of collaborative thinking and idea generation. Students also develop and execute effective, collaborative project management to address complex problems across different industries. Offers opportunities for students to acquire decision-making and problem-solving skills by implementing financial and scoring models, cost and resource estimates, and by fostering a collaborative and team-oriented work ethic. Completion of (2010-level course) is not required for enrolling in this course.

Student may only receive credit for CACS 2010 or CACS 3010, but not both. This depends on your degree plan and prior credits, so please check with your advisor prior to registration.

CACS 3020 - Research Design and Methods: How to Conduct Research

3 hours The objective is to develop students' understanding and knowledge of the process of designing and conducting research in different fields. Covers topics and themes related to knowledge production through systematic inquiry – a formalized process of questions, designs, and methods to conduct generative research. Students have an opportunity to prepare a thorough research proposal or report to reinforce different research methodologies, data collection, analyses, and presentation tools in qualitative, quantitative, or mixed methods research design. Completion of

(2020-level course) is not required for enrolling in this course.

Student may only receive credit for CACS 2020 or CACS 3020, but not both. This depends on your degree plan and prior credits, so please check with your advisor prior to registration.

CACS 3030 - Creativity and Complex Problems: How to Facilitate Creative Teams Effectively

3 hours The course introduces foundational concepts of systems complexity and the Creative Problem-Solving approach (CPS) to understand and solve complex problems. Its focus is on understanding the psychological basis of CPS, when the CPS approach can be used successfully, and how the progression from one stage of CPS to the other can be altered depending on our goals and needs. Students learn various creative thinking heuristics used to define problems, generate ideas, and develop solutions; they also apply the heuristics to solve ill-defined, complex problems. The students also learn how to design effective CPS sessions and how to facilitate them to increase team creativity. Completion of (2010-level course) is not required for enrolling in this course.

Student may only receive credit for CACS 2030 or CACS 3030, but not both. This depends on your degree plan and prior credits, so please check with your advisor prior to registration.

CACS 3040 - Applied Team Development: Research to Practice

3 hours Introduces the foundational elements of team development, organizational behavior, and leadership with successful business or project outcomes. Builds a working knowledge of how to build a team, improve teamwork and collaboration, and sustain team performance through continuous learning and improvement. Students explore organizational culture and behavior across economic and socio-cultural planes and develop an understanding of cross talk between team behaviors and organizational mission and values. Students learn best practices for composing a team, aligning individual and team goals and tasks, and managing divergent perspectives. Students also learn how to establish roles, build structures, manage decision making to harness the productive potential of teams while mitigating the risks and traps of teamwork. Combines recent business case studies with research findings from social sciences such as psychology, sociology and other related disciplines. Completion of (2040-level course) is not required for enrolling in this course.

Student may only receive credit for CACS 2040 or CACS 3040, but not both. This depends on your degree plan and prior credits, so please check with your advisor prior to registration.

College of Science

COS 1100 - Science Success Seminar

1 hour COS 1100 is a first-year seminar course designed to support and enhance success in the College of Science and UNT by teaching and practicing healthy academic habits, connecting students to campus resources, and building a support network of peers, faculty, and staff.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

COS 2300 - Shadowing and/or Clinical Internship in the Health Professions

1–3 hours

Supervised work in a clinical setting or a shadowing opportunity related to the student's career objective.

Prerequisite(s): A clinical internship or semester-long shadowing opportunity approved by the Office of Health Professions.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

COS 4100 - Career Competency Development Seminar

1 hour Lecture-based course built on the competencies used to establish a competitive applicant for professional schools and graduate programs. At the conclusion of the course, students will have identified areas of weakness, as well as strengths, and be able to present themselves in a multitude of formats to these programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

Commercial Music

MUCO 1000 - Creative Practice in the Music Industry

3 hours Students explore technical, professional and creative practices of the commercial music industry.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCO 1200 - Analysis and Critical Listening in Commercial Music and Music Production

3 hours Sound production in popular music recordings from the 1960s to the present day. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCO 2300 - Commercial Music Writing and Production

3 hours Project-based learning featuring writing and producing projects in multiple commercial music genres.

Prerequisite(s): MUAE 3100; MUAE 3200 suggested.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCO 3500 - Cultures of Hip Hop

3 hours A study of hip hop culture from its early developmental stages in the mid-1970s to the present day. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCO 4000 - Topics in Commercial Music/Production

3 hours Advanced studies in commercial music, production, music industry, music for media, or business of commercial music.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Communication Studies

COMM 1010 - Introduction to Communication

(SPCH 1311)

3 hours (1;0;2) Examination of how communication principles and skills influence our understanding of current social problems such as global climate crisis, health care, and poverty. Focus on communication and community engagement includes experimental learning with community partners. Oral communication skills and collaborative group building skills are emphasized.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 1440 - Honors Classical Argument

3 hours Uses of argument in rational decision making based on classical theories of reason. Elements of argument, classical foundations of argument and contemporary application of argument principles.

Prerequisite(s): Acceptance to Honors College.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 2020 - Interpersonal Communication

(SPCH 1318)

3 hours Introduction to interpersonal communication research results and theories with application in two-person and small group relationships in a variety of human communication contexts.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 2040 - Public Speaking

(SPCH 1315)

3 hours (1;0;2) Introduction to principles of and practice in preparing public speaking speeches. Stresses the role of public speaking in democratic decision making.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 2060 - Performance of Literature

(SPCH 2341)

3 hours (1;0;2) Performance as a method of textual study. An introduction to the theory and practice of analyzing, rehearsing and performing non-dramatic texts. Recommended for elementary education majors.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 2140 - Advocating in Public

3 hours (1;0;2) Introduction to the critical dimensions of rhetoric and argument through presentation and evaluation of public discourse. Balanced attention to the theory and practice enabling students to analyze the persuasive function of public discourse; to discuss the role of audience in the construction of public discourse; and to develop skills for constructing, supporting, and evaluating public discourse.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3010 - Communication Perspectives

3 hours (1;0;2) Intensive research and writing course in which students learn concepts and skills necessary to review communication research, engage in critical research about communication phenomena and write a research proposal. This course must be taken prior to or concurrently with a student's first enrollment in upper-division COMM courses. A student who fails to complete the course successfully after two attempts (either through withdrawal or failure to achieve a grade of C or better) will not be permitted to enroll in subsequent semesters.

Prerequisite(s): Completion of 30 hours college course work with a cumulative grade point average of 2.50 or higher, including the English Composition and Rhetoric portion of the University Core Curriculum, COMM 1010, COMM 2020, COMM 2060 and COMM 2140 all with grade of C or better.

Communication majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3040 - Communication, Public Dialogue and Civic Deliberation

3 hours

Emphasizes framing issues, guiding conversations, and fostering inclusive participation skills for civic leadership and democratic deliberation.

Prerequisite(s): COMM Majors: COMM 3010

Non-COMM Majors: COMM 2140

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3120 - Nonverbal Communication

3 hours (1;0;2) Applications of research and theory in understanding the impact of nonverbal communication in a variety of human contexts.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3220 - Health Communication

3 hours (1;0;2) Communication in medical settings; origins, nature and impact of communication practices and beliefs in the health-care delivery system; role of interaction on human well-being.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3240 - Rhetoric of Japanese Popular Culture and Public Memory

3 hours Japanese popular culture as a site of public memory and identity.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3260 - Storytelling, Narrative and Everyday Life

3 hours (1;0;2) Investigation of the role of story in the formation of identity and culture, as well as exploration of the narrative structure of everyday life.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3320 - Communication and Conflict Management

3 hours (1;0;2) Examination of the role of communication in the effective management of conflict and introduction to basic mediation topics such as gender, intercultural and nonverbal communication. Study of conflict in various common contexts: intrapersonal, interpersonal, group and organizational.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020 or PSCI 4821 or PADM 4000 or PADM 3100 or MGMT 3720 or MGMT 3721.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3325 - Social Science Methods in Communication Research

3 hours

Survey of social scientific research methods in communication. Emphasis on social scientific research processes, including research design, data collection and analysis, and presentation of data to various public audiences.

Prerequisite(s): Non-Majors: COMM 2020.

Majors: COMM 3010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3340 - Methods of Rhetorical Criticism

3 hours (1;0;2) Survey of significant methodologies available to rhetorical critics. Emphasis on the critical abilities necessary to describe, explain, analyze, and evaluate symbolic influence in the public sphere.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3360 - Digital Storytelling and Performance

3 hours

Create and analyze performances that merge multimedia storytelling with live and mediated expression.

Prerequisite(s): COMM Majors: COMM 3010

Non-majors: COMM 2060, THEA 1050, or COMM 3260

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3420 - Communication and New Technology

3 hours (1;0;2) Examination of communication in technologically mediated environments. Emphasis on how these environments affect impression formation and management, deception and trust, attraction and relationship formation, group dynamics, social support and networking, community building, etc.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3440 - Public Address Studies

3 hours (1;0;2) Major theories of public address and the critical assessment of selected persuasive addresses in the public arena.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3445 - Propaganda and Persuasion

3 hours Examination of rhetorical theories and concepts for distinguishing between propaganda and persuasion. Emphasis on critical thinking, argumentation and ethical communication practices.

Prerequisite(s): Majors: COMM 3010. Non-majors: COMM 2140 or COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3540 - The Zombie as Rhetorical Figure

3 hours Explores the rhetorical figure of the zombie, its cultural force, the way it is put into the service of different structural forces, and made to speak for certain causes. Attends to the zombie figure's roots and circulation across film, television, graphic novels, other literature, and even scientific inquiry in order to track its meaning and uses.

Prerequisite(s): COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3620 - Intercultural Communication

3 hours (1;0;2) Knowledge and skills designed to increase intercultural communication competence. Investigation into the ways in which culture interrelates with and affects communication processes. Examines affective, behavioral and cognitive processes involved in intercultural learning.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3640 - Communication Ethics

3 hours

Ethical dimensions of communication, especially in mediated contexts. Focus on ethics as questioning, negotiation, and productive conflict amongst diverse viewpoints.

Prerequisite(s): COMM Majors: COMM 3010

Non-majors: COMM 2140 or COMM 2020 or COMM 2060

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3720 - Small Group Communication

3 hours (2;0;1) Theory, research and laboratory experience in small group communication; problems in group discussion; decision-making techniques.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020 or PSYC 3100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3760 - Performance Methods

3 hours (1;0;2) Advanced topics in individual performance as a method of textual study as well as theory and practice in individual performance as an aesthetic event and as a rhetorical and social act.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3820 - Social Media Perspectives

3 hours (1;0;2) Examination of how emerging communication tools and technologies change the nature of human communication. Provides a socio-historical understanding of the changing nature of media technology and the rise of social media as well as an exploration of driving factors and future trends in social media technology development.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3840 - Argumentation and Debate

3 hours (2;0;1) Theory, research and practice in developing and presenting arguments on public policy issues; reasoning, strategy and oral advocacy.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3865 - Adaptation and Staging

3 hours (1;0;2) Adaptation and staging for performance. Focus on the visual language of stage composition, adaptation and staging non-dramatic materials, examinations of the roles of the director, actor and audience member.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3880 - Debate Practicum

1–3 hours Practicum. Instruction and practice in competitive debate. Advanced discussion of argumentation theory and debate practice with an emphasis on contemporary intercollegiate debate. Requires participation in debate tournaments and weekly team meetings.

Prerequisite(s): Participation on UNT Debate Team and consent of instructor.

May be repeated for credit for a maximum of 9 hours; however, no more than 3 hours total credit for COMM 3880 may be applied to the communication studies major or minor requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 3920 - Organizational Communication

3 hours Principles of communication applied in the organizational environment. Focus upon diagnosis, analysis, and resolution methods related to communication-based problems with organizations.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020 or MGMT 3330 or MGMT 3820 or MGMT 3860 or PSYC 3520.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4020 - Communication Theory

3 hours (2;0;1) Process of theory construction with particular emphasis on human communication, elements and types of theories, theoretical logics, metatheoretical perspectives toward communication, and specific content theories of communication.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4040 - Rhetorical Theory

3 hours (2;0;1) A study of rhetorical traditions that provide useful insights into how individuals engage in rhetorical transactions.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4060 - Performance Theory

3 hours (2;0;1) Examination and comparison of text-centered, performer-centered and audience-centered theories of performance; functions of performance; and methods for evaluating performance.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4065 - 20th Century Performance Styles

3 hours (1;0;2) Examination of the evolution of performance philosophies, techniques and conventions that have provided the foundation for contemporary theory and practice of the academic discipline of performance studies. Students engage 20th century traditions through discussion, analysis and performance.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4120 - Communication and Sport

3 hours (1;0;2) Examination of sport communication research from three perspectives: (1) a practical perspective aimed at improving performance, (2) an interpretive perspective addressing how participants make sense of their participation, and (3) a critical perspective interrogating problematic aspects of sport, including issues of gender, race and class.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4140 - Gender and Communication

3 hours (1;0;2) Exploration of the connections between gender, rhetoric and public culture. Analyzing rhetorical constructions of gender in American discourses including politics, race and sexuality, in contexts that include public protests, speeches, movies, poetry, television and music.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140 or WGST 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4160 - Intertextuality and Performance

3 hours (1;0;2) Examination of the myriad relationships that exist among texts in both the consumption of existing texts and the production of original texts through the processes of questioning, parodying, rewriting and critiquing these texts through the processes of performance.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4220 - Theories of Crisis Communication

3 hours Examines communication within the context of organizational crises from theoretical and practical perspectives.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling. Minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4240 - Rhetoric and Popular Culture

3 hours (2;0;1) Consequences of discourse on popular culture. May include rhetoric in film, music, youth culture, art, social movements, social media or other arenas. Focuses on the rhetorical aspects of popular culture and the grounds for the criticism of culture from a rhetorical perspective.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4260 - Performance and Culture

3 hours (2;0;1) Examination of the role of performance in cultures. Research and analysis of texts and performance practices among various ethnic and cultural groups.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4265 - Performance and Activism

3 hours Survey of creative performance tactics used to advance social justice aims. Application of performance theories and methods to understand and enact activism in civic life.

Prerequisite(s): Majors: COMM 3010. Non-majors: COMM 2060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4320 - Communications and Virtual Gaming

3 hours (1;0;2) Exploration of fundamental concepts related to games and gamers from socio-cultural, psychological and technological viewpoints. Explores the role of gaming technologies in communication, focusing on how they change the nature of communication and their impacts on people's lives and on society, and develops analytical abilities for examining games and gaming technology.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4340 - Rhetoric and Politics

3 hours (2;0;1) Rhetoric of political campaigns, presidential rhetoric, legal communication, and the rhetorical creation, maintenance, use and legitimization of symbolic power.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4345 - The Rhetoric of Other Worlds

3 hours Examination of rhetorical devices from the genre of speculative fiction to understand how political leaders engage in public address, worldmaking and deliberative democracy.

Prerequisite(s): Majors: COMM 3010. Non-majors: COMM 2140 or COMM 2060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4360 - Performance Composition

3 hours (2;0;1) Contemporary performance practices as critical and persuasive tools. Develops skills in reading, writing, analyzing and performing a broad range of texts to acquaint students with the variety of methods whereby performances can be composed.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4420 - Communication and Relational Development

3 hours (2;0;1) The role of communication processes in initiating, developing, defining, maintaining and dissolving various forms of human relationships. Examines the nature of communication in a variety of relational contexts.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4445 - Rhetoric of Clothing

3 hours

Clothing as a form of communication and persuasion. Engages theories of material rhetoric alongside practical methods for analyzing style and dress in everyday life.

Prerequisite(s): Majors: COMM 3010

Non-majors: COMM 2140

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4460 - Performance Art

3 hours (2;0;1) Survey of historical and contemporary avant-garde performance art. Examination of historical and contemporary movements to develop a critical lens and vocabulary for composing performances.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4465 - Per[FORM]ing Autoethnography

3 hours Application of autoethnography as a qualitative research method to analyze cultural identities. Emphasis on personal narrative, storytelling and embodied practice.

Prerequisite(s): Majors: COMM 3010. Non-majors: COMM 2060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4520 - Theories of Persuasion

3 hours Applications of theory and research in persuasive communication; persuasion techniques across a variety of contexts; affective, cognitive, and behavioral responses relevant to persuasion processes.

Prerequisite(s): Communication studies majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2020 or PSYC 2600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4525 - Leadership and Strategic Communication

3 hours

How different types of communication play into developing successful leadership traits and skills. Focus on case studies and opportunities to apply skills to likely organizational scenarios.

Prerequisite(s): COMM Majors: COMM 3010.

Non-majors: COMM 2020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4540 - Communication Theories of Sexuality

3 hours (1;0;2) Examines the ways in which sexuality is constituted through (public) discourses. Uses critical theories to investigate rhetorics that sustain multiple and intersecting sexual identities and gender performances, and apply to everyday experiences with popular culture. Topics addressed include the rhetorical construction and disciplining of heteronormativity, homonormativity, heterosexual and queer sexualities, as well as performances of masculinity and femininity.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140 or WGST 2100.

Same as WGST 4300X .

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4545 - Rhetorics of Protest, Movement(s) and Resistance

3 hours Application of rhetorical theories and concepts to examine individual and collective efforts for social change. Survey of historical and contemporary acts of protest and social movements.

Prerequisite(s): Majors: COMM 3010. Non-majors: COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4560 - Devised Performance

3 hours

Devised performance through theory, history, and hands-on practice. Students research, write, direct, design, and collaborate to create an original performance showcased in the Black Box theater.

Prerequisite(s): COMM Majors: COMM 3010

Non-majors: COMM 2060, THEA 1050 , or COMM 3260

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4640 - Latin@ Rhetorics

3 hours Examines the ways in which discourse is created, circulates and constitutes contemporary understandings of "Latin@-ness" in the United States. Uses a critical rhetorical lens to investigate how Latin@ identity, community and politics have come to be meaningful in the contemporary United States. Topics include histories of Latin@ experience in the United States, (intersecting) performances/expressions of Latin@ identity, borders/bordering, and popular representations of Latin@s.

Prerequisite(s): Communication Studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4740 - Landscapes of Public Memory

3 hours Examines contemporary locations and landscapes of public memory. Begins with the fundamental assumption that contemporary rhetoric plays a primary role in shaping individuals' experiences with public (memory) spaces. Explores particularly salient locations of public memory and investigates how one's experience and understanding of such places is rhetorically informed.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4800 - Communication Internship

1–3 hours (0;0;1–3) Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Communication studies major; junior or senior classification; minimum GPA of 3.0 on courses taken at UNT; completion of department core plus at least 6 upper-level hours in communication studies at UNT; student must meet employer's requirements and have consent of department internship supervisor.

May be repeated, but a maximum of 3 semesters credit hours of internship credit may be applied to the major in communication studies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4829 - Topics in Interpersonal/Organizational Studies

3 hours (2;0;1) Rotating topics in interpersonal communication, organizational communication, or communication research methods.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2020.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4849 - Topics in Rhetorical Studies

3 hours (2;0;1) Investigation of various topics related to the study of humans using symbolic discourse to influence others. Theory and application using qualitative and historical/critical methodologies.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2140.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4869 - Topics in Performance Studies

3 hours (2;0;1) Rotating topics may include: performance of particular genres, including poetry narrative, drama or non-literary texts; performance methods, including thematic approaches to performance or historical styles of performance; or theoretical issues in performance, including narrative theory, intertextuality or New Historicism.

Prerequisite(s): Communication studies majors must complete COMM 3010 with a grade of C or better prior to enrolling; minors and other majors must complete COMM 2060.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4900 - Special Problems

1–3 hours Prerequisite(s): Problem must be approved by department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4910 - Special Problems

1–3 hours Prerequisite(s): Problem must be approved by department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4950 - Senior Honors Thesis

3 hours Available to COMM majors having completed at least 90 semester hours with an overall GPA of 3.50 or better.

Prerequisite(s): COMM 4020 and COMM 4021X , or COMM 3340 and COMM 4040, or COMM 4060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

COMM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $6 (differential fees)

Computer Science and Engineering

CSCE 1010 - Discovering Computer Science

(COSC 1301)

3 hours (3;0) A breadth-first introduction to computer science based upon 7 "Big Ideas," namely: 1) computing is a creative activity, 2) abstraction reduces information and detail to facilitate focus on relevant concepts, 3) data and information facilitate the creation of knowledge, 4) algorithms are used to develop and express solutions to computational problems, 5) programming enables problem solving, human expression and creation of knowledge, 6) the Internet pervades modern computing and 7) computing has global impacts.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1015 - Computing Tools and Techniques Laboratory

1 hour (0;2) Fills in the "missing" information needed to become a successful, working computer scientist/engineer. A hands-on introduction to the tools, techniques, and procedures needed to be successful in future courses and careers. Topics include Linux, containerization/virtualization, version control with Git, IDEs (Integrated Development Environments), testing/debugging/profiling code, secure coding practices, PKI (public key infrastructure) cryptography, tool automation, basic networking.

Corequisite(s): CSCE 1030 or CSCE 1035.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1020 - Program Development

(COSC 1315)

4 hours (3;1) Introduction to problem-solving, algorithms and programming in a high-level language.

Prerequisite(s): High school algebra or equivalent.

May not be counted toward a major in computer science, a major in computer engineering, a major in information technology, or a minor in computer science and engineering.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1030 - Computer Science I

(COSC 1336 or COSC 1436)

3 hours (3;1) Introduction to computer science and engineering, problem-solving techniques, algorithmic processes, software design and development. Programming concepts. Currently uses the Python Programming Language.

Prerequisite(s): CSCE 1010 (for CSE majors only) with a grade of C or better, and MATH 1100 or MATH 1650 or MATH 1710 or MATH 1810, with a C or better.

Corequisite(s): CSCE 1015 (for CSE majors only).

Same as CSCE 1035.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1035 - Computer Programming I

(COSC 1336 or COSC 1436)

3 hours (3;1) Overview of computers and programming. Focus is on problem analysis and techniques used in the development of algorithms and computer programs using a modern programming language. Topics include data types, expressions, statements, operators, input/output, conditional statements, iteration, functions, lists and debugging. No prior knowledge of programming is assumed.

Prerequisite(s): CSCE 1010 with a grade of C or better, and MATH 1100 or MATH 1650 or MATH 1710 with a C or better.

Corequisite(s): CSCE 1015 (for CSE majors).

Same as CSCE 1030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1040 - Computer Science II

(COSC 1337 or COSC 1437)

3 hours (3;1) Continuation of CSCE 1030. Software design, structured programming, object-oriented design and programming. Currently uses the C++ Programming Language.

Prerequisite(s): CSCE 1030 with a grade of C or better; and MATH 1100 or MATH 1650 or MATH 1710 or MATH 1810, with a grade of C or better.

Same as CSCE 1045.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 1045 - Computer Programming II

(COSC 1337 or COSC 1437)

3 hours (3;1)

Continues the progression of students' software development skills through programming, designing, and implementing larger software projects and emphasizes more advanced topics such as dynamic data structures and object-oriented paradigms using one or more modern programming languages.

Prerequisite(s): CSCE 1035 with a grade of C or better.

MATH 1100 or MATH 1650 or MATH 1710 with a grade of C or better.

Same as CSCE 1040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2100 - Foundations of Computing

3 hours (3;0;1) Conceptual and formal models, efficiency and levels of abstraction as used in the field of computing, combinatorics and conditional probability, basic operations of sets, functions, relations, trees and graphs, regular expressions, and finite state machines to describe patterns in strings.

Prerequisite(s): CSCE 1040 or CSCE 1045 , with a grade of C or better.

Corequisite(s): MATH 1710 or MATH 1810. Can be taken concurrently with CSCE 2110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2110 - Foundations of Data Structures

(COSC 2336 or COSC 2436)

3 hours (3;0;1)

Continuation of Computing Foundations I. Further introduces students to both data structures and formalisms used in computing, such as asymptotic behavior of algorithms. Data structures and formalisms used to both describe and evaluate those data structures simultaneously. Time complexity of algorithms; merge sort and heap sort; data structures for trees and graphs; elementary graph algorithms; breadth-first search; depth-first search; topological sorting; Prim's algorithm and Kruskal's algorithm. By the end of the two-semester sequence of which this course is the second part, each student will have a solid foundation in conceptual and formal models, efficiency, and levels of abstraction as used in the field of computer science.

Prerequisite(s): CSCE 1040 or CSCE 1045, with a grade of C or better.

Corequisite(s): This course can be taken concurrently with CSCE 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2120 - Foundations of Computing: Vectors and Matrices

3 hours Introduces the fundamentals of linear algebra in the context of computer science applications. Includes vector spaces, matrices, linear systems, and eigenvalues. Includes the basics of floating-point computation and numerical linear algebra.

Prerequisite(s): CSCE 2100 with a C or better; MATH 1710 or MATH 1810, with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2130 - Foundations of Computing: Analysis and Modeling

3 hours Introduces probability and statistical methods through applications in computing. Students learn how to design, analyze, and interpret computational experiments while exploring core topics such as probability models, random variables, sampling, estimation, hypothesis testing, correlation, and data modeling. Emphasizes practical skills—reasoning about uncertainty in algorithms, analyzing system performance, making data-driven decisions, and building probabilistic models for computing problems—while maintaining a rigorous, mathematical, and evidence-based foundation.

Prerequisite(s): CSCE 2100 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2210 - Introduction to Visual Scripting for Games

3 hours

This introductory course is tailored to immerse students in the realm of game development with a specific focus on visual scripting using industry standard game engine tools Students will gain hands-on experience predominantly with visual scripting, while also exploring other core features of the game engines such as actors, inputs, user interfaces, collisions, graphics, animations, audio, diagnostics, and optimizations. The course will emphasize best practices in visual scripting for game design, fostering creativity within game engine frameworks, and understanding the integration of visual scripting with other game engine aspects. Participants will learn to develop well-structured, extensible projects that leverage the power of visual scripting, and work effectively with complex platforms, frameworks, and toolsets.

This introductory course immerses students in game development, focusing on visual scripting using common industrial game engine systems. It covers core features such as actors, inputs, user interfaces, and more, emphasizing best practices in game design and visual scripting integration.

Prerequisite(s): CSCE 1010 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2610 - Assembly Language and Computer Organization

(COSC 2325 or COSC 2425)

3 hours (3;0;1)

Principles of computer systems organization, instruction sets, assembly language programming, computer arithmetic, data and control paths, and introduction to memory hierarchy.

Prerequisite(s): CSCE 2100 with a grade of C or better.

Corequisite(s): **CSCI majors:** EENG 2710.

CMPE majors: EENG 2710 taken concurrently with EENG 2711.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2900 - Special Problems in Computer Science and Engineering

1–4 hours Individualized instruction in theoretical or experimental problems.

Prerequisite(s): Students must get instructor consent by email, as well as departmental consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Students must upload the instructor consent and all other consent/approval documentation in the form.

For elective credit only. May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3010 - Signals and Systems

3 hours Elementary concepts of continuous-time and discrete-time signals and systems. Specific topics include linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms, frequency-domain analysis of LTI systems, Laplace transforms, z-transforms and rational function descriptions of LTI systems.

Prerequisite(s): EENG 2610/EENG 2611 and MATH 2730 or MATH 3410 with a grade of C or better in all of the required courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3020 - Communications Systems

3 hours (3;0;2) Introduction to the concepts of analysis and design of communication system components using signal analysis techniques. Amplitude and angle modulation for the transmission of continuous-time signals. Introduction to analog and digital filter design and analysis.

Prerequisite(s): CSCE 3010 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3055 - IT Project Management

3 hours Provides students with the tools and techniques needed to manage a wide variety of IT systems projects, including software design and development, IT systems design and installation, network management and support and others. Students develop and practice skills through the use of case studies and other project-based exercises.

Prerequisite(s): CSCE 2100 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3201 - Applied Artificial Intelligence

3 hours

Core concepts and terminology in artificial intelligence will be introduced to understand the taxonomy of AI applications - the relationships between the tools and frameworks available for intelligent, data-driven decision making. This will include a demo-driven introduction to machine learning, with general principles of powerful predictive models discussed and the role of unsupervised and semi-supervised learning techniques in powering many state-of-the-art decision systems.

Prerequisite(s): MATH 1650 with a grade of C or better or consent instructor.

This course is for non-computer science and engineering majors.

Experience with Python is helpful as it is used extensively in the course, but significant prior programming experience with any language will be sufficient.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3210 - Symbolic Processing

3 hours Introduction to symbolic processing using LISP, Prolog or related languages; recursion; building abstractions with data; modularity, objects and state; meta-linguistic abstraction.

Prerequisite(s): CSCE 2100 and CSCE 2110. Each with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3214 - Software Development for Artificial Intelligence

3 hours

New paradigms for developing software are needed to create and manage systems with AI capabilities, particularly for practitioners without extensive programming experience. Students in this course will be taught how to leverage available artificial intelligence APIs flexibly and reliably through a series of demo-driven tasks. Additionally, as data management is integral to AI system development, an emphasis will be made to collect and process data for AI system training and testing. Traditional programming concepts and software design principles will be covered in a task-oriented manner to interface with advanced AI libraries and frameworks in order to build and maintain AI infrastructure.

Prerequisite(s): MATH 1650 with a grade of C or better, or instructor consent.

This course is for non-computer science and engineering majors.

Experience with Python is helpful as it is used extensively in the course, but significant prior programming experience with any language will be sufficient.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3220 - Human Computer Interfaces

3 hours Human-Computer Interaction (HCI). Methods for designing, prototyping and evaluating user interfaces for computing applications. Human capabilities, interface technology, interface design methods and interface evaluation tools and techniques.

Prerequisite(s): CSCE 2100 and CSCE 2110, Each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3222 - AI for Game Development

3 hours Offers an in-depth exploration of Artificial Intelligence (AI) techniques applied in game development. Students learn to create intelligent game systems, including pathfinding, decision-making, adaptive AI, procedural content generation, and machine learning. Emphasizes hands-on projects, teamwork, and the development of a game prototype with integrated AI systems.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3410 - Advanced Programming

3 hours Advanced features and topics in modern programming languages and introduction to a variety of languages, and advanced programming concepts and methodologies. Topics vary by section and semester.

Prerequisite(s): CSCE 2100 with a grade of C or better.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3420 - Internet Programming

3 hours Covers Internet programming in depth, including client-server peer-to-peer and web applications. Primary goal is to help students understand the principles of how distributed applications are built, while also giving them practical experience in creating common Internet applications.

Prerequisite(s): CSCE 2100 and CSCE 2110 both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3444 - Software Engineering

3 hours Modular design and implementation of software systems. Topics include requirements and specifications development, documentation of the design using current design tools such as UML, testing of software implementation, and system and user documentation.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Corequisite(s): CSCE 4350

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3450 - Global Software Development

3 hours Students will be provided knowledge of and practical experience in working within a distributed collaborative team to develop a complex software product in an academic environment. Students learn how to use professional collaborative development tools in order to facilitate the completion of a large software product within a scheduled time frame. Students learn how to work in teams and understand the processes that govern the effectiveness of developing software systems in a global setting.

Prerequisite(s): CSCE 2100 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3520 - Data Communications

3 hours Overview of data communication, communication models and networking. Analog and digital data transmission, transmission impairments, channel capacity, asynchronous and synchronous transmission, error detection and correction, flow control and error control. Multiplexing and de-multiplexing techniques (FDM, STDM, ADSL and xDSL). Ethernet interfaces, IEEE 802.3 and IEEE 802.11 MAC layer. Interface Standards (RS-232, RS-449 and X.21). Packet switching, Frame Relay and ATM switching, bridges, layer2 and layer3 switches.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3530 - Introduction to Computer Networks

3 hours Introduction to data communications; asynchronous, synchronous, networks and current technology.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3550 - Foundations of Cybersecurity

3 hours (3;0;1) Security goals, threats and vulnerabilities. Cryptography, program security and operating system security issues. Basic network security. Planning, policies and risk analysis.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Corequisite(s): CSCE 3600

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3560 - Cloud Security

3 hours (3;0;1) Introduces theoretical and practical aspects of computer systems security and present ways to protect a computer system. Topics include operating system security, hardware security modules, cryptoprocessors, hypervisors, trusted platform modules, virtualization security, storage security, trusted hardware, application isolation, and cloud and IoT security. Students will also explore emerging security challenges facing computer systems based on recent research papers.

Prerequisite(s): CSCE 3600 and CSCE 3550 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3600 - Principles of Systems Programming

3 hours (3;0;1) Introduction to the design and operation of systems software. Analysis is made of current system software technology, including operating systems, language translation systems and file systems.

Prerequisite(s): CSCE 2100 and CSCE 2110, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3605 - Systems Administration

3 hours Prepares students with an understanding of virtual machines with universal principles that apply to all operating systems structure and operation including the concepts of processes, resource and file management and performance. Students also develop an understanding of the pervasive use of Unix-based operating systems in the design of various systems such as switches, routers, load balances, wireless controllers and network management platforms to provide various services to support interaction between computer-based systems.

Prerequisite(s): CSCE 3600 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3610 - Introduction to Computer Architecture

3 hours Design of simple and pipelined processors, introduction to co-processor design, techniques to improve performance, memory hierarchy, cache memories, input-output system and interrupts.

Prerequisite(s): CSCE 2610 or CSCE 4127, and CSCE 3730, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3612 - Embedded Systems Design

3 hours (3;0;2) Computer systems as embedded computing elements and micro-controllers. System specification using UML or other high-level abstract models. Issues and constraints on embedded computing systems, including power, performance, memory and size. Use of DSP, ASIC and micro-controllers in a single design.

Prerequisite(s): CSCE 2610 or CSCE 4127; ENGR 2720/ENGR 2730 or EENG 2710/EENG 2711, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3615 - Enterprise Systems Architecture and Design

3 hours Introduces upper division IT students to concepts of system architecture, design and software engineering that are needed for career opportunities as software, system and business analysts. Topics include enterprise architecture design, requirements analysis, software and systems lifecycle methodologies, Unified Modeling Language, analysis and design methodologies and other related topics. Project activities expose all students to the full design and specification of IT systems to meet a variety of business and technical problems, as well as prepare them for their capstone course experiences.

Prerequisite(s): CSCE 2100 with a grade of C or better. This course is not available as an elective or replacement for Computer Science (CSCI) majors as it is substantially similar to CSCE 3444.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3730 - Reconfigurable Logic

3 hours (3;0;1) Advanced concepts in Boolean algebra, use of hardware description languages as a practical means to implement hybrid sequential and combinational designs, digital logic simulation, rapid prototyping techniques, and design for testability concepts. Focuses on the actual design and implementation of sizeable digital design problems using representative computer aided design (CAD) tools.

Prerequisite(s): CSCE 2610 or CSCE 4127, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3850 - Introduction to Computational Life Science

3 hours Survey treatment of the applications of computational paradigms in the natural and physical sciences. Designed to have a broad appeal to natural and physical science students as well as computer science students.

Prerequisite(s): CSCE 2100 with a grade of a C or better. Instructor approval for non-CSE students can be obtained by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides.

Same as BIOL 3850.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean. As well as Departmental Consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload documentation of consent in the form.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4010 - Social Issues in Computing

3 hours The effect of computer science and engineering on the home and workplace, with emphasis on the role of computer professional in modern society.

Prerequisite(s): CSCE 3600 with a C or better. For non-CSE majors, departmental consent can be obtained by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4050 - Applications of Cryptography

3 hours Introduces the fundamentals of cryptography and their applications. The knowledge gained from this course will enable students to apply cryptographic algorithms as building blocks for designing security solutions.

Prerequisite(s): CSCE 2100 and CSCE 2110, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4110 - Algorithms

3 hours Time complexity of algorithms; algorithm design methodologies including divide and conquer, greedy, and dynamic programming; exposure to approximation algorithms for NP-hard problems; performance evaluation of algorithms.

Prerequisite(s): CSCE 2110 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4115 - Formal Languages, Automata and Computability

3 hours Introduces students to the formal language theory that underlies modern computer science. Topics include different representational forms for regular languages, context-free grammars, pushdown automata, pumping lemmas for regular and context-free languages, and Chomsky's hierarchy.

Prerequisite(s): CSCE 2100 and CSCE 2110, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4127 - Digital Logic and Computer Organization Concepts

4 hours (4;0;1) Discusses the computer systems and its organization, number systems, instruction sets, computer arithmetic, design of combinational and sequential circuits, data and control paths, memory hierarchies. Also introduces assembly language programming to help students write better high-level language programs. Specifically designed as a supporting area course for the IT majors.

Prerequisite(s): CSCE 2100 completed with C or better. This course is for BA in IT majors only.

May not be used in place of CSCE 2610 or EENG 2710 for other majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4160 - Parallel Programming

3 hours Introduction to processing in parallel and distributed computing environments. General concepts of parallel machine models, processes, threads, mutual exclusion, synchronization and message passing. Design and analysis of parallel algorithms for engineering and scientific applications. Parallel programming using message passing and shared memory paradigms.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4200 - Web Search and Information Retrieval

3 hours Introduction to text-based information retrieval (IR) techniques, i.e. search engines. Examining various IR models such as the Boolean model and vector space model. Study of efficient indexing, processing and querying textual data. Techniques for improving search performance and evaluating systems. Algorithms and information retrieval system implementations.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4201 - Introduction to Artificial Intelligence

3 hours Introduction to concepts and ideas in artificial intelligence, including topics such as search techniques, knowledge representation, problem-solving, logic, probabilistic reasoning, learning, perception and natural language processing.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4205 - Introduction to Machine Learning

3 hours Theory and practice of machine learning. Linear regression, logistic regression, decision trees, neural network learning, support vector machines, kernel methods, bagging, boosting, random forests, ensemble learning, deep learning, unsupervised learning including k-means and hierarchical agglomerative clustering, semi-supervised learning, active learning and reinforcement learning. Practical applications of machine learning algorithms. Topics in experimental design and computational learning theory.

Prerequisite(s): CSCE 2110 with a grade of C or better. Non-CSE majors must have Instructor consent by email. As well as departmental consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4210 - Game Programming I

3 hours (3;0;1) Introduction to game programming, including real-time, event-driven, and multimedia programming techniques. Graphics, sound and input programming. Students learn how to program a billboard game in 3D with constrained camera motion.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4220 - Game Programming II

3 hours Game engine programming techniques, including real-time 3D graphics programming, shader techniques, terrain rendering, level of detail, collision detection, particle engines, 3D sound and character animation.

Prerequisite(s): CSCE 4210, CSCE 4255, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4230 - Introduction to Computer Graphics

3 hours Basic Euclidian geometry and linear algebra, computer graphics algorithms and data structures, OpenGL and its inner workings.

Prerequisite(s): CSCE 2100, CSCE 2110, MATH 2700, each with a grade of a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4240 - Introduction to Digital Image Processing

3 hours Covers fundamental knowledge of digital image processing techniques, including image formation, filtering and image enhancement, restoration, region and edge segmentation, and image coding.

Prerequisite(s): CSCE 2100 and CSCE 2110, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4250 - Topics in Game Development

3 hours Advanced topics in game development, possibly including but not limited to character animation, procedural content generation, shader techniques and graphics special effects. Discussion of articles from the recent academic and technical literature on game development and related material from relevant computer science areas.

Prerequisite(s): CSCE 4210 with a grade of C or better.

Corequisite(s): CSCE 4220.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4255 - Programming Math and Physics for Games

3 hours Fundamentals of game math and physics for game development, including linear algebra, matrix math for graphics, quaternions, basic physics equations, game math and physics implementation, physics engines.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4290 - Introduction to Natural Language Processing

3 hours Introduction to natural language processing, modern theories of syntax, context free parsing, transformational syntax and parsing, computational semantics and survey of natural language processing systems.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4300 - Intro to Big Data and Data Science

3 hours Introduction to Big Data and Data Science includes an overview of the field, technical challenges, computational approaches, practical applications, structured and unstructured data processing, empirical methods in computer science, data analytics and learning, data visualization, privacy and ethics. Emphasis will be on Big Data and its effect on other topics within Data Science, its technical characteristics, and state-of-the-art Big Data analytics architectures and tools.

Prerequisite(s): CSCE 2110 with a grade of C or higher, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4350 - Fundamentals of Database Systems

3 hours Logical and physical database system organization; logical models; design issues; secondary storage considerations.

Prerequisite(s): CSCE 2100 and CSCE 2110, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4355 - Database Administration

3 hours Database administration skills covering installation, configuration and tuning a database; administering servers and server groups; managing and optimizing schemas, tables, indexes and views; creating logins; configuring permissions; assigning roles, and performing other essential security tasks, backup and recovery strategies, automation and maintenance.

Prerequisite(s): CSCE 4350 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4357 - Database Systems Security

3 hours Provides a strong foundation in the principles, practices and methodologies of database security and auditing as well as their impact on the design of today's information systems. Introduces the security challenges and threats in databases systems and provides an understanding of current security technologies. Topics include database application security models, security architecture, access controls, database and database auditing, trust management, privacy, threat vectors and attack methods.

Prerequisite(s): CSCE 4350 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4380 - Data Mining

3 hours Fundamental concepts and techniques of data mining, including data attributes, data pre-processing, statistical foundations, association discovery, mining frequent patterns, classification methods, prediction and cluster analysis.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4430 - Programming Languages

3 hours Syntax, semantics and computation models of programming languages. Formal foundations of major programming paradigms and in-depth study of key features of high-level programming languages from each paradigm.

Prerequisite(s): CSCE 2100 and CSCE 2110, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4440 - Real-Time Software Development

3 hours Specification of real-time system requirements, timing, synchronization and fault-tolerance issues, construction and validation of real-time software. Mathematical formalisms, design and analyses using real-time UML are also emphasized.

Prerequisite(s): CSCE 3612 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4460 - Software Testing and Empirical Methodologies

3 hours Addresses recent advances in the field of software testing, including empirical methodologies that provide a systematic way to investigate various software engineering techniques and methodologies. Students learn various fundamental testing techniques and the state of the art in testing techniques, and understanding how to design, conduct, analyze and write up empirical studies of software engineering technologies.

Prerequisite(s): CSCE 2110 a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4510 - Introduction to Wireless Communications

3 hours Fundamentals of wireless communications and networking, with emphasis on first, second and third generation cellular systems and satellite communication. Topics include point-to-point signal transmission through a wireless channel, cellular capacity, multi-user transmissions and mobility management.

Prerequisite(s): CSCE 2610 or CSCE 4127, and MATH 2730, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4520 - Wireless Networks and Protocols

3 hours Architecture and elements of a wireless network. Signaling schemes used in wireless networks, network signaling, protocols and standards. Study of functions of network elements such as Radio Access Network (eNodeB), Mobility Management Entity (MME), Packet Data Network Gateway (PG-W) and Serving Gateway (SG-W). Wireless protocols and technologies in interconnecting these elements. Study of 4G and 5G protocols of cellular networks.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4530 - Computer Network Design

3 hours Fundamental concepts, requirements and design tradeoffs, particularly as related to scheduling, congestion control, routing and traffic management. Wireless access, mobility (including WLAN), VoIP and applications. Firewalls, NATs, VPN, high availability and optical rings.

Prerequisite(s): CSCE 3530 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4535 - Introduction to Network Administration

3 hours Students explore topics in network administration in theoretical and practical ways, study different software platforms, control, shared resources, administration, security, anti-virus procedures and methodologies.

Prerequisite(s): CSCE 3530 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4540 - TCP/IP Protocols

3 hours Investigation of the TCP/IP protocol suite, components and interaction with operating systems. Topics include special protocols, routing protocols, MobileIP, as well as FTP, TELNET, SMTP, DHCP, HTTP, DNS, etc.

Prerequisite(s): CSCE 3530 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4555 - Computer Forensics

3 hours (3;0;1) Fundamentals of computer forensics and cyber-crime scene analysis including laws, regulations, international standards and formal methodology for conducting computer forensic investigations. Topics include advanced computer forensic science capabilities such as target hardening and software, tools for data duplication, recovery and analysis, and development of pre-search or on-scene computer investigative techniques.

Prerequisite(s): CSCE 2110 with a grade of C or better OR consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4560 - Secure Electronic Commerce

3 hours Electronic commerce technology, models and issues, with emphasis on security issues. Supporting technology such as cryptography, digital signatures, certificates and public key infrastructure (PKI). Security-conscious programming for web-based applications. Exposure to interaction between technical issues and business, legal and ethical issues.

Prerequisite(s): CSCE 2110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4565 - Secure Software Development

3 hours (3;0;1)

Covers fundamentals and techniques to design and implement software systems, assessment of security vulnerabilities in software systems, exploitation of software vulnerabilities, and methods to secure vulnerable software. Secure coding practices, data analytics for security, microservices and cloud services security are also addressed, as well as reverse engineering and security assessment of cyber-physical systems.

Prerequisite(s): CSCE 3550 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4570 - Information Privacy

3 hours Examines popular concepts of privacy and provides an in-depth look into privacy-related technologies, privacy laws, and self-regulatory efforts. In addition to technical aspects, covers other aspects of privacy such as philosophical, historical, cultural, economic, legal and policy perspectives.

Prerequisite(s): CSCE 3550 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4575 - Blockchain and Applications

3 hours (3;0;1) A foundation in principles, practices, and methodologies of blockchaining, including its architecture and operation. Topics include distributed ledgers; block creation and proof of work; mining and incentivizing techniques; transactions; successful private and public blockchains; and barriers to adoption. Also includes setting up and deploying applications of smart contracts in areas such as IoT, networks, healthcare, finance, supply chain and identity management.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4600 - Introduction to Operating Systems

3 hours (3;0;1) Concepts in operating system analysis and design. General topics of process, resource and file management are presented and analyzed in the context of different system architectures and performance constraints.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4610 - Computer Architecture

3 hours Study of performance issues and power requirements related to modern computer systems, including Instruction Level Parallelism, out-of-order instruction scheduling, branch prediction, speculative execution, cache memory and concurrency.

Prerequisite(s): CSCE 2610 or CSCE 4127, and CSCE 3600; or CSCE 3610. Each course must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4620 - Real-Time Operating Systems

3 hours Basic real-time operating systems concepts and services, including interrupt processing, process and thread models, real-time software architectures and development environments. Detailed study of the design and implementation of real-time applications using real-time operating systems. Focus on commercial real-time operating systems/development environments, including vxWorks, RTOS and pOSEK/pOSEKSystem.

Prerequisite(s): CSCE 3612 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4650 - Introduction to Compilation Techniques

3 hours Topics include parsing, syntax-directed translation, run-time storage management, error recovery, code generation and optimization. A significant project is required.

Prerequisite(s): CSCE 2100, CSCE 2110 and CSCE 3600, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4655 - Principles of Compiler Optimization

3 hours Design and implementation of modern methods of analysis and optimization within compilers for a variety of target architectures. Topics include intermediate representations, advanced code generation, control- and data-flow analysis, advanced compiler optimization, dynamic compilation, global register allocation and instruction scheduling.

Prerequisite(s): CSCE 3600 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4665 - Usability Testing in Software Engineering

3 hours This course will introduce students to usability topics, including HCI style guides, user interface localization and usability testing. Students will work individually on small homework assignments and in a team on a larger project.

Prerequisite(s): CSCE 3444 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4730 - VLSI Design

3 hours Introduction to VLSI design using CAD tools, CMOS logic, switch level modeling, circuit characterization, logic design in CMOS, systems design methods, test subsystem design, design examples, student design project.

Prerequisite(s): CSCE 2100, ENGR 2720 and ENGR 2730, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4750 - VLSI Testing

3 hours Advanced experience with CAD tools for VLSI design, IC testing. Design project from CSCE 4730 to be fabricated and tested. Implementation and verification of test programs, IC testing and troubleshooting, legal, economic and ethical design issues. Oral presentations and written reports are required.

Prerequisite(s): CSCE 4730 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4810 - Bioinformatics Algorithms

3 hours (3;0;1) Introduction to computational problems inspired by the life sciences and overview of the algorithms behind the bioinformatics tools. Exposure to fundamental algorithmic concepts underlying sequence data in computational molecular biology. Formulate biological problems as computational problems and implement algorithms to solve these problems efficiently. Topics include methods to compute sequence alignments (dynamic programming algorithm), motif finding (randomized algorithms), DNA sequence assembly (graph algorithms), protein sequencing data analysis (brute force algorithms), and sequence data analysis (suffix trees and hidden Markov models).

Prerequisite(s): CSCE 3850 or departmental consent for non-CSE majors by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

Same as BIOL 4810 and MATH 4810; meets with CSCE 5810.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4815 - Bioinformatics

3 hours Familiarize students with state-of-the-art methodologies in Bioinformatics and Computational Biology, and help them understand how to apply these techniques to solving biological and biomedical problems.

Same as MATH 4815.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4820 - Advances in Bioinformatics

3 hours (3;0;1) Use of computational methods to address modern bioinformatics problems. Master the latest advances in bioinformatics and develop data science solutions to analyze large biological datasets and solve important biological questions. Topics include analysis of next-generation sequencing datasets, integration of multi-omics datasets, supervised and unsupervised analysis of biomedical datasets, inference of gene regulatory networks, and genome-wide association studies (GWAS).

Prerequisite(s): CSCE 3850 or departmental consent for non-CSE majors by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

Same as BIOL 4820; meets with CSCE 5820.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4890 - Directed Study

1–3 hours

Study by individuals or small groups if faculty supervisor agrees. A plan of study approved by the faculty supervisor along with the study will be graded by the faculty supervisor; must be approved by the coordinator for undergraduate studies.

Prerequisite(s): Junior or senior standing in computer science, computer engineering or information technology, and consent of instructor.

Required instructor consent by email and departmental consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

May be repeated for credit for a maximum of 6 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4901 - Software Development Capstone I

3 hours First of a two course sequence in which students develop a complex Software System starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents and finally, deliver the finished product to the customer. The first course will focus on the analysis and design of the system.

Prerequisite(s): CSCE 3444 and TECM 2700, each with a grade of C or better. Senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4902 - Software Development Capstone II

3 hours Second course in the senior capstone sequence. Focus is the application of techniques to the design of software systems and software components. Students apply the theory acquired from numerous engineering courses to solve real-world design problems. The design will consider realistic constraints including economic, environmental, sustainability, manufacturability, ethical, social and safety.

Prerequisite(s): CSCE 4901 with a grade of C or better. CSCE 4902 must be completed in the long term/semester immediately following the completion of CSCE 4901.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4905 - Information Technology Capstone I

3 hours First of a two-course sequence in which students develop a complex IT system starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents and finally, deliver the finished product to the customer. The first course focuses on the analysis and design of the system.

Prerequisite(s): CSCE 3055 and CSCE 3615 (or CSCE 3444), each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4907 - Cybersecurity Capstone I

3 hours First of a two-course sequence in which students apply cybersecurity principles and techniques to develop a complex information system starting from customer requirements and progressing through the entire analysis, design, implementation and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents and finally, deliver the finished product to the customer. The first course focuses on the analysis and design of the secure system.

Prerequisite(s): CSCE 3550 with a grade of C or better.

Corequisite(s): CSCE 4565 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4910 - Computer Engineering Design I

3 hours First course in the senior capstone design sequence. Focus is the application of techniques to the design of electronic systems that have digital hardware and software components. Students apply the theory acquired from numerous engineering courses to solve real-world design problems. The design will consider realistic constraints including economic, environmental, sustainability, manufacturability, ethical, social and safety.

Prerequisite(s): CSCE 3612 and EENG 3510 and appropriate area electives, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4912 - Artificial Intelligence Capstone I

3 hours First of a two-course sequence in which students work in a team to design and develop a complex AI-focused Software System, starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents, and finally deliver the finished product to the customer.

Prerequisite(s): CSCE 4201, CSCE 4205, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4915 - Computer Engineering Design II

3 hours Second course in the senior capstone design sequence. Focus is the application of techniques to the design of electronic systems that have digital hardware and software components. Students apply the theory acquired from numerous engineering courses to solve real-world design problems. The design will consider realistic constraints including economic, environmental, sustainability, manufacturability, ethical, social and safety.

Prerequisite(s): CSCE 4910 with a grade of C or better. CSCE 4915 must be completed in the long term/semester immediately following the completion of CSCE 4910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4920 - Cooperative Education in Computer Science and Engineering

1–3 hours

Supervised field work in a job directly related to the student's major field of study or career objective.

Prerequisite(s): Junior or senior standing in computer science, computer engineering or information technology, consent of instructor, and departmental consent.

May be repeated for credit, maximum 6 credit hours.

Pass/No Pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4922 - Artificial Intelligence Capstone II

3 hours Second of a two-course sequence in which students work in a team to design and develop a complex AI-focused Software System starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop and maintain a project

plan, complete the technical components of the project, prepare a variety of deliverable documents, and finally deliver the finished product to the customer.

Prerequisite(s): CSCE 4912 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4925 - Information Technology Capstone II

3 hours Second of a two-course sequence in which students develop a complex IT system starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents and finally, deliver the finished product to the customer. The second course focuses on the implementation, testing and delivery of the system.

Prerequisite(s): CSCE 4905 with a grade of C or better. CSCE 4925 must be completed in the long term/semester immediately following the completion of CSCE 4905.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4927 - Cybersecurity Capstone II

3 hours Second of a two-course sequence in which students apply cybersecurity principles and techniques to develop a complex information system starting from customer requirements and progressing through the entire analysis, design, implementation and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents and finally, deliver the finished product to the customer. The second course focuses on the implementation, testing and delivery of the secure system.

Prerequisite(s): CSCE 4907 with a grade of C or better. CSCE 4927 must be completed in the long term/semester immediately following the completion of CSCE 4907.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4930 - Topics in Computer Science and Engineering

3 hours

Topics vary.

Prerequisite(s): Junior or senior standing in computer science, computer engineering or information technology, and consent of instructor.

Required instructor consent via email and departmental consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload the instructor's consent in the form.

May be repeated for credit, a maximum of 6 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4940 - Special Computer Application Problem

1–4 hours

Study defined by the student in applying computer science to another field. Work supervised and work plan approved by one faculty member from computer science and one from relevant application area; one to three students may work together if all faculty advisors concerned agree.

Prerequisite(s): Prior approval of plan by faculty supervisor.

Instructor consent by email and departmental consent required.

Open to advanced undergraduate students capable of developing problems independently.

May be repeated for credit, for a maximum of 6 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4950 - Special Problems in Computer Science and Engineering

1–3 hours

Prior approval of plan of study by faculty supervisor.

Prerequisite(s): Junior or senior standing in computer science, computer engineering or information technology, and consent of instructor.

Instructor consent by email and departmental consent required.

May be repeated for credit, maximum 6 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4951 - Honors College Capstone Thesis

3 hours

Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Required instructor consent, approval of the dean of the school or college in which the thesis is prepared, and approval of the dean of the Honors College by email. As well as departmental consent by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides. Please upload all approvals in the form.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CSCE 4999 - Senior Thesis

3 hours

Intended to be a serious exercise in the organization and presentation of written material. Students select their own topics, in consultation with their faculty advisor. The thesis is a research paper and students are responsible, with the advice of their faculty, for the investigation of sources, the accumulation of data, the selection of pertinent material and the preparation of the thesis in acceptable form.

Prerequisite(s): Senior standing.

Students must submit their own topics for thesis, with designated advisor approval, before they are allowed to register for the course.

Instructor consent by email and departmental consent required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Construction Engineering Technology

CNET 1160 - Construction Methods and Materials

3 hours Introduction to the materials, systems, methods and procedures of building construction.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 2180 - Building Construction Techniques

3 hours (2;3) Contemporary techniques used in the construction industry; nature, use and characteristics of materials; construction methodology, application and sequencing in the building process. Course will include hands-on construction of a scale model of a building.

Prerequisite(s): CNET 1160 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 2300 - Construction Graphics and Modeling

3 hours (2;3) Interpretation and creation of construction plans using hand drafting, CAD and BIM methods.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 2900 - Special Problems

1–4 hours Individualized instruction in theoretical or experimental problems.

Prerequisite(s): Consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3150 - Construction Contract Documents

3 hours Interpretation of construction drawings; architectural, structural, mechanical, electrical and landscaping documents; development, interpretation and implementation of specifications and other construction documents.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3160 - Construction Cost Estimating

3 hours (2;3) Procedures, techniques and systems of construction cost estimating. Includes work classification, quantity detailing, specification interpretation and bid preparation.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3190 - Construction Scheduling

3 hours (2;3) Study of construction scheduling utilizing current techniques including Critical Path Method (CPM), the Precedence Method (PM), the Program Evaluation and Review Technique (PERT) and a probabilistic method.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3410 - Occupational Safety and Liability

3 hours Study of basic concepts of accident prevention, safety education, economic impact and environmental hazard control. Includes OSHA regulations and other regulations as they relate to the employer, the employee and the public.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3430 - Structural Analysis

3 hours Analysis of continuous structures using slope-deflection, conjugate-beam and virtual work methods. Force and stiffness methods of analysis are applied to truss and frame structures. Relevant computer applications are applied.

Prerequisite(s): ENGR 2332 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3440 - Steel Structures

3 hours Principles, analysis and methodologies for conceptual and detailed design of steel structures. Emphasis on the role of mechanics in modern structural engineering design specifications with a focus on load and resistance factor design. Topics include behavior and design of hot-rolled and cold-formed steel, connections, members frames and advanced analysis techniques.

Prerequisite(s): CNET 3430 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3450 - Structures I

3 hours Basic theory of engineering mechanics and relationships among loads placed on structures. Topics include description of loads, equilibrium in 2 and 3 dimensions, free-body diagrams, resultant stresses, strains and deflections of structures.

Recommended: CNET 2180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3452 - Structures II

3 hours A comprehensive introduction to the principles of structural analysis and structural design of steel, concrete and timber structures.

Recommended: CNET 3450.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3460 - Soils and Foundations

3 hours (2;3) Study of the properties of subsurface materials and the principles of subsurface construction. Topics include soil classification and testing, soil mechanics and foundation systems.

Prerequisite(s): CNET 2180, ENGR 2332, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3480 - Structural Design with Concrete, Timber and Other Materials

3 hours (2;3) Review of current requirements and techniques for design of modern structures using materials such as reinforced concrete, timber, engineered brick and concrete masonry. Relevant design specifications and criteria are included.

Prerequisite(s): CNET 2180, CNET 3430, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3900 - Special Topics in Construction Engineering Technology

1–4 hours Individualized or group instruction on special topics in construction engineering technology with hands-on activities, experiments and data acquisition, software-based simulations and analysis of results appropriate for rising junior or junior-level students.

Prerequisite(s): Consent of program coordinator.

May be repeated for credit as topics vary up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4170 - Construction Management

3 hours Planning, organizing, scheduling and managing construction projects. Includes preconstruction planning, cost and quality control, materials procurement, subcontractor management, start-up and close-out.

Prerequisite(s): CNET 3160 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4180 - Problems in Project Management

3 hours Construction project management simulation involving bid preparation, cost control, scheduling, contract preparation, construction documents interpretation, punchlist management and project evaluation.

Prerequisite(s): CNET 4170 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4190 - Quality Management in Construction

3 hours Introduction to the principles and techniques associated with quality management and six sigma concepts as practiced in the construction industry.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4230 - Introduction to Risk Management in Construction

3 hours Introduction to risk management strategies by identifying potential risks and assigning mitigation control measures.

Prerequisite(s): CNET 2180 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4620 - Advanced Design in Cold-Formed Steel Structures

3 hours (2;3) Study of the theories of design and behavior of cold-formed/light gauge steel structural members, connections and systems. Relevant design specifications and computer applications are included.

Prerequisite(s): CNET 3430 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4625 - Advanced Design in Cold-Formed Steel Structures

3 hours (2;3) Study of the theories of design and behavior of cold-formed/light gauge steel structural members, connections and systems. Relevant design specifications and computer applications are included.

Prerequisite(s): CMGT 3435 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4780 - Senior Design I

1 hour Project teams specify, plan and perform management analysis of an engineering or construction product or process. Oral and written documentation required. Projects to be supplied by the local construction industry whenever possible.

Prerequisite(s): CNET 3190, CNET 3440, CNET 3460, all with a grade of C or better; senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4785 - Senior Design I

1 hour Project teams specify, plan and perform management analysis of an engineering or construction product or process. Oral and written documentation required. Projects to be supplied by the local construction industry whenever possible.

Prerequisite(s): CNET 3190, CMGT 3445 and CMGT 3465, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4790 - Senior Capstone

3 hours (2;3)

The senior capstone is the culminating experience for Construction Engineering Technology students. Teams of CNET students plan, design, and execute a comprehensive project that integrates technical knowledge, engineering methods, and professional practices within the construction industry. Projects emphasize applied problem-solving in areas such as construction planning, bid evaluation, scheduling, cost estimating and control, quality assurance, sustainability, project management, safety, contract administration, materials selection, and value engineering. Whenever possible, projects address real-world problems identified in collaboration with industry or government partners. Each team prepares a written proposal, technical deliverables, and a formal oral presentation demonstrating their mastery of construction engineering technology competencies and ABET student outcomes.

Prerequisite(s): CNET 3190, CNET 3440, CNET 3460, all with a grade of C or better, and senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4900 - Special Problems

1–4 hours Individualized instruction in theoretical or experimental problems. Written report required.

Prerequisite(s): Consent of instructor and program coordinator.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4910 - Special Problems

1–4 hours Individualized instruction in theoretical or experimental problems. Written report required.

Prerequisite(s): Consent of instructor and program coordinator.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4920 - Cooperative Education Internship

1 hour Supervised industrial internship requiring a minimum of 150 hours of work per experience.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 3 semester credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CNET 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Construction Management

CMGT 2200 - Surveying for Construction

3 hours (2;3) Surveying principles, instruments, measurements and calculations fundamentals of surveying for building construction; survey drawings and mapping.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 2304 - Statics and Strength of Materials

3 hours This course includes a study of applied engineering mechanics including forces, static equilibrium and simple truss analysis. An emphasis is placed on the concepts and mathematical calculations of stress, strain and deflection within structural elements encountered in construction. The rationale and factors of safety for sizing and design of these elements is reviewed.

Prerequisite(s): MATH 1190 or MATH 1710 (or MATH 1810 and MATH 1810) with a grade of C or better and PHYS 1410 or PHYS 1710 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 3435 - Structural Analysis

3 hours Analysis of continuous structures using slope-deflection, conjugate-beam and virtual work methods. Force and stiffness methods of analysis are applied to truss and frame structures. Relevant computer applications are applied.

Prerequisite(s): CMGT 2304 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 3445 - Steel Structures

3 hours Principles, analysis and methodologies for conceptual and detailed design of steel structures. Emphasis on the role of mechanics in modern structural engineering design specifications with a focus on load and resistance factor design. Topics include behavior and design of hot-rolled and cold-formed steel, connections, members frames and advanced analysis techniques.

Prerequisite(s): CMGT 3435 or CNET 3430, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 3465 - Soils and Foundations

3 hours (2;3) Study of the properties of subsurface materials and the principles of subsurface construction. Topics include soil classification and testing, soil mechanics and foundation systems.

Prerequisite(s): CMGT 3435 or CNET 3430, with a grade C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 3485 - Structural Design with Concrete, Timber and other Materials

3 hours (2;3) Review of current requirements and techniques for design of modern structures using materials such as reinforced concrete, timber, engineered brick and concrete masonry. Relevant design specifications and criteria are included.

Prerequisite(s): CMGT 3435 or CNET 3430, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 4630 - Construction Management for Mechanical, Electrical and Plumbing (MEP) Systems

3 hours 3 Investigation into the integrated approach of managing and scheduling the installation of MEP systems, including the study and analysis of basic mechanical, electrical and plumbing components in construction and their relationships to the overall building.

Prerequisite(s): CNET 3150 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 4795 - Senior Capstone

3 hours (2;3) Students develop a capstone project covering key topics like project planning, bid evaluation, scheduling, budgeting, controlling and monitoring, quality control and assurance, sustainability, project management, safety, contract administration, material selection, and value engineering, culminating in a comprehensive proposal or demonstration of overall project understanding and oral presentation. Multidisciplinary teams work on construction process and operation problems defined in cooperation with representatives from construction, engineering and architecture firms, industry, or government organizations when possible.

Prerequisite(s): CNET 4170 with a grade of C or better, and Senior Standing

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

CMGT 4920 - Cooperative Education Internship

1 hour Provides practical general training and experience in the workplace. The university together with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. Regular (typically) weekly meetings between the instructor and the student serve to both check progress and offer advice and encouragement. Site visits (if necessary) by the instructor provide field verification of experiences gained.

Prerequisite(s): Senior standing or consent of department.

Counseling

COUN 2600 - Culture-Centered Social and Emotional Learning in the Schools

1.5 hours Focuses on the inclusion of social emotional learning (SEL) in school environments, including relevance to cultural factors and individual mental health. Students will be encouraged to consider how educational professionals assess and cultivate preK-12 students' healthy identities, emotional expressions, supportive relationships and personal/collective goals. Content includes how educators can utilize SEL practices to foster equity and excellence in schools that support students' mental health.

Recommended: Admission to the teacher education program. LTEC 2600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 2610 - Principles of Counseling I

3 hours (3;0;1) Introduction to the broad range of counseling services and their application to schools and community agencies.

May be taken concurrently with COUN 3630, COUN 3640, and COUN 4620.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 2620 - Diversity and Cultural Awareness

3 hours Didactic, experiential and applied learning opportunities prepare students to understand differences and commonalities within diverse cultures. Students learn how cultural identity influences personal and world views, perceptions of experience and styles of communication. With a focus on developing intra- and interpersonal awareness, students cultivate attitudes and practice skills necessary for relating constructively with diverse individuals in a variety of work settings.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 3600 - Therapeutic Play

3 hours Didactic experience in how to be a therapeutic agent in children's lives. Students are introduced to the fundamental concepts and models of therapeutic play and building therapeutic relationships with children. Students are also introduced to basic child-centered play therapy principles and training requirements. Observations of play therapy sessions are required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 3620 - Principles of Counseling II

3 hours Integrated overview of counseling services through personal self-exploration by the counseling associate. Focus is on the understanding of interpersonal dynamics through self-awareness.

Prerequisite(s): COUN 2610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 3630 - Foundations of Career Planning and Development

3 hours

Overview of current problems and developments in career decision making and planning.

Prerequisite(s): COUN 2610 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 3640 - Group Process in Helping Relationships

3 hours Group dynamics laboratory: group functions and leadership styles as related to helping relationships.

Prerequisite(s): COUN 2610 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 4620 - Interpersonal Skills in Helping Relationships

3 hours Didactic and experiential training in interpersonal relationships; analysis and application of effective counseling activities.

Prerequisite(s): COUN 2610.

Recommended: COUN 2620.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 4900 - Special Problems

1–3 hours Individual instruction to cover course content in special circumstances.

Prerequisite(s): Consent of chair or dean.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

COUN 4910 - Special Problems

1–3 hours Individual instruction to cover course content in special circumstances.

Prerequisite(s): Consent of chair or dean.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Criminal Justice

CJUS 2100 - Crime and Justice in the United States

(CRIJ 1301)

3 hours Examines the societal responses to people and organizations that violate criminal codes; discusses the history, development, organization and philosophy of the justice process; and analyzes the complex inter-relationships between the major components of the criminal justice system (police, courts and corrections).

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2300 - Police Systems

(CRIJ 2328)

3 hours Focuses on the role and function of police in contemporary society, the problems arising between citizens and police from the enforcement of laws, the limitations of police in a democratic society and the methodologies used by the police to be a more effective component of the justice system.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2400 - Correctional Systems

(CRIJ 2313)

3 hours Focuses on prisons and jails. Examines the goals and history of punishment; the death penalty; the composition and social organization of jail and prison populations; bail, detention, sentencing and classification; institutional management and the conflicts between rehabilitation and punishment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2500 - Criminal Law

(CRIJ 1310)

3 hours Examines general and statutory bases and theories of criminal law and jurisprudence.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2600 - Judicial and Legal Systems

3 hours Examines the courts, the legal and judicial process and judicial behavior.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2850 - Careers in Criminal Justice

3 hours Careers in Criminal Justice explores the various career paths within the Criminal Justice Field, while finding alignment amongst values, interests, personality, and skills (VIPS) related to career choices. Students practice self-reflection and learn about the various roles, responsibilities and qualifications for positions in law enforcement, corrections, forensic science, private security and other related areas.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3320 - Corporate Security and Loss Prevention

3 hours Overview of loss prevention problems and the security and management strategies designed to protect the private sector from crime, fire, accident, employee dishonesty and natural disaster.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3330 - Introduction to Criminalistics

3 hours (3;0;1) Overview of the field of criminalistics, with a focus on the recognition, collection, preservation and analysis of physical evidence. Introduction to topics such as fingerprint examination, trace evidence analysis and firearm examination. Prerequisite for more advanced criminalistics courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3340 - Computer Crime

3 hours Introduction to computer crime through an examination of the crime and those individuals committing it, as well as the specific laws, investigative techniques and criminological theories applicable to computer crime.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3500 - Inequality, Crime and Justice

3 hours Critically examines inequality within the U.S. criminal justice system. Topics of emphasis include the interaction of race, gender and class on the development, organization and operation of the criminal justice system.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3600 - Criminology

3 hours Provides an overview of the major criminological perspectives and an examination of the social, political and intellectual milieu within which each developed. Focuses on the multi-disciplinary nature of criminological thought.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3610 - Juvenile Justice

3 hours Examines the juvenile justice system and the handling of juvenile delinquents in the United States. Specific attention is devoted to the history of the juvenile justice system and current police, court and correctional policies and practices pertaining to juvenile offenders.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3620 - Juvenile Delinquency

3 hours Examines juvenile delinquency in the United States. Specific attention is devoted to the definitions, measurement and correlates of juvenile delinquency. Additional focus is paid to the various theories of juvenile delinquency and what each theory prescribes for preventing, treating and handling juvenile delinquents.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3630 - Drugs, Crime and Society

3 hours Examines the relationship between drugs, crime and human behavior. Explores the relationship between drug abuse and crime and the policy proposals developed to control drug trafficking, drug abuse and drug-related crime, as well as the multi-faceted aspects and effects of chemical abuse and dependency.

Same as SOCI 3630.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3710 - Serial Homicide

3 hours

Exploration of the phenomena of serial homicide from both the academic and popular perspectives. Course examines in detail “what we know” about serial homicide: the typologies of serial killers, victims, methods of killing, general and serial homicide trends over time, theories of serial murder, the impact of serial homicide on society as a whole and specifically justice system operation, myths and facts about serial homicide, and in general, what is known about the “making of a serial murderer.” Class also researches relevant topics such as serial murder investigative techniques and the use (and utility) of profiling used to help catch serial killers.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3900 - Research Methods in Criminal Justice

3 hours Examines research methodology in criminal justice. Special emphasis is placed on methods and techniques for conducting research in criminal justice, including the relationship between theory and research, the nature of causation, research designs and techniques, conceptualization and measurement, operationalization, sampling and ethical issues.

Prerequisite(s): Must have completed CJUS 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4200 - Criminal Procedure

3 hours Examination of the constitutional and statutory bases and judicial interpretations of the procedures governing the administration of criminal justice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4280 - Gender and Crime

3 hours Examines the theoretical explanations of female offending and the experiences of women in the criminal justice system.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4330 - Domestic and International Terrorism

3 hours Provides in-depth knowledge about domestic and international terrorism. Specific focus on strategies designed to address the threat of terrorism from a criminal justice perspective, particularly involving the police assuming new roles in homeland security. Explores ideological theories of terrorism and identifies trends and patterns of terrorism and hate crimes in our world.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4350 - Seminar on Violence

3 hours An analysis of the incidence, patterns and causes of criminal violence; the characteristics of particular crimes (e.g., murder, robbery, rape, domestic abuse, terrorism); and society's reaction to such violence.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4360 - Criminal Investigation

3 hours Study of methods of obtaining and reporting information from the crime scene, victims, witnesses and suspects. Specific attention is given to investigation of index crimes (homicide, rape, robbery, assault, burglary, arson, motor vehicle theft and larceny).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4460 - Community Corrections

3 hours Examines the concept of community corrections from various perspectives. Also examines contemporary practices and trends in probation, parole and other forms of community corrections.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4480 - White Collar Crime

3 hours Examines crimes committed by persons of high social status, corporations, and governments. Explores the causes and consequences of violations of environmental, safety, health, and labor laws; finance crimes; corporate abuses of power; fraud; crimes of globalization; and violations of the public trust. Contrasts the legal, social, and political response to criminal wrongdoing by corporate and high social status offenders with responses to "street crime."

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4550 - Innocence and Wrongful Convictions

3 hours Examines the social, organizational, and scientific causes of false convictions, best practices to prevent false convictions, and the process of exoneration. Explores the legal and political evolution of the innocence movement and compensation for the wrongfully convicted.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4600 - What is Justice?

3 hours Study the ethical meaning of justice in the United States. Problems confronting police, the courts and the juvenile and correctional systems are addressed.

Prerequisite(s): CJUS 2100.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4610 - Alternative Systems of Crime Control

3 hours There are many social systems that affect the crime rate outside of formal criminal justice systems. These systems include the relationships between crime and religious, educational, political, economic, and community structures. Formal criminal justice and legal systems are limited at best in their ability to control crime. Informal social control systems are generally more effective at preventing deviance and criminal behavior.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4650 - Victimology

3 hours Exploration of the scope of victim issues in American society. Review of the programs and services provided to victims of crime. The expanding roles of the courts, police, battered women shelters, victim/witness assistance programs, crisis intervention units and legislation are highlighted.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4720 - Student Police Academy

3 hours Students explore careers in law enforcement by participating in simulations and experiential learning activities. Affords an opportunity to engage in critical discussion with law enforcement officers about the role of policing. Topics covered include police recruiting/hiring, the life of a police officer, mental health issues in law enforcement, the use of force, search and seizure, and de-escalation strategies.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4750 - Inside Out Prison Exchange Program

3 hours

The Inside-Out Exchange Course is an opportunity for a group of students from the University of North Texas and a group of residents of the Bridgeport Correctional Center to exchange ideas and perceptions about crime, corrections, and the criminal justice system. It is a chance for all participants to gain a deeper understanding of the criminal justice system by combining theoretical knowledge and practical experience.

This course will be held face-to-face, off-campus at the Bridgeport Correctional Center. Students must complete the required application, interview, and be an approved volunteer through the Texas Department of Criminal Justice (TDCJ) prior to participating.

Course Objectives:

1. To provide a setting for students to understand various issues surrounding crime and justice.
2. To create an environment that will facilitate the honest exchange of ideas in a constructive dialogue.
3. To create a dialogue between those on the outside and those on the inside.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4760 - Crime over the Life Course

3 hours Provides an in-depth exploration of crime and the life course, focusing on how criminal and deviant behavior develops and changes across different stages of life. Examine the life course as a theoretical orientation, research methodology, and empirical field, with special attention to key concepts such as trajectories, transitions, and turning points. Through readings, discussions, and applied projects, students will analyze real-world cases, compare major theories, and consider how life course research can inform effective criminal justice policy and practice. Encourages critical thinking, collaboration, and personal growth. Class members are expected to work together in a respectful and supportive environment where everyone's contributions are valued.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4850 - Internship in Criminal Justice

3–6 hours Each student is placed as a participant observer in a criminal justice agency for a minimum of 120 hours to provide an opportunity to apply academic training to practical situations.

Prerequisite(s): CJUS 2100 or equivalent and 12 additional hours of criminal justice courses and consent of department.

Students may only enroll in 3 or 6 hours, for a total of 6 credit hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4870 - Topics in Criminal Justice

3 hours Seminar class devoted to an investigation, analysis and discussion of significant problems in contemporary criminal justice.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

CJUS 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4901 - Criminal Justice Capstone Experience

3 hours

Examination of the problems and issues involved in administering criminal justice and law in the United States. Course represents the final capstone experience for the student and should generally be taken in the semester the student will graduate.

Prerequisite(s): Must be a senior and have a minimum of 18 hours in CJUS with 12 hours from the CJUS core.

CJUS 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

CJUS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Critical Studies in Music and Society

MUCS 3000 - Seminar in Critical Studies in Music and Society

3 hours An exploration of a question, problem, or topic relating to music and society from multiple disciplinary perspectives.

Prerequisite(s): Open to majors in Critical Studies in Music and Society only; or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCS 4000 - Senior Capstone in Critical Studies in Music and Society

3 hours

Major research or creative project prepared by the student under the supervision of a faculty member.

Prerequisite(s):

Open to majors in Critical Studies in Music and Society only; MUCS 3000; or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Dance

DANC 1100 - Stress Reduction Through Movement

3 hours (3;1) An introductory course designed to acquaint and equip the student with diverse and global perspectives on wellness and health maintenance. Four basic units of study: 1) varying medical philosophies and disciplines; 2) the mind-body connection; 3) therapeutic massage and bodywork; 4) movement (strength, flexibility, balance, and endurance). Develops an understanding of the power each of us has to affect the immune system and the body's efficiency to promote and maintain health.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 1200 - Appreciation of Dance as a Contemporary Art Form

3 hours Exploration of the aesthetics of dance as an art form. Emphasis placed on the development of an appreciation for dance as a form of communication and as a reflection of contemporary society through the lens of concert dance of the 20th and 21st centuries. Includes lectures, films and live performances, as well as written critical analysis.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 1310 - Social Dance

3 hours (0;6) An introduction to Ballroom and Latin dancing typical in social settings; typically covers American and International styles such as Swing, Lindy Hop, Cha Cha, Waltz, Rumba, Quickstep, Foxtrot, Samba, Mambo, Merengue, Tango, and Salsa. Proper execution of movements and basic partnering techniques.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 1600 - Foundations of Hip Hop

3 hours (0;6) Explores Hip-Hop dance as a unique culture rooted in global and urban dance forms, emphasizing its evolution and relevance today. Explore roles as performers, choreographers, and improvisers with a focus on conceptual frameworks, somatic principles, and socio-cultural norms.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 1700 - Foundations of Tap

3 hours (0;6) Introduces fundamental tap techniques, focusing on rhythm, musicality, and expressive movement. Foundational steps, footwork patterns, and combinations while enhancing coordination, timing, and precision. Emphasis is placed on developing strong musicality and rhythmic creativity, along with a solid grasp of tap terminology for confident execution.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2110 - Strength and Conditioning for Performance

3 hours Techniques to boost performance, prevent injuries, and stay energized. Real-world insights into nutrition, stress management, and body alignment, that build a wellness routine that goes beyond the classroom.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2230 - Choreographic Methods

3 hours (0;6) An introduction to the practical methods of dance choreography, focusing on fundamental techniques and the creative process from initial idea to final presentation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2400 - Foundations of Contemporary Dance

3 hours (0;6) Perspectives, theories, and practices of contemporary dance, including somatics, improvisation, and progressive technique studies. Emphasis on structural alignment, physical efficiency, and movement vocabulary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2410 - Foundations of Ballet

3 hours (0;6) Foundational ballet vocabulary and introductory techniques of classical and contemporary ballet practices. Emphasis on alignment, form, coordination, and execution of sequencing ballet movement vocabulary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2510 - Dance and Drill

3 hours (0;6) Comprehensive foundation in the skills and techniques required for drill-team and precision-based dance styles. Various dance forms, including jazz, pom, kick line, lyrical, and more.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2800 - Survey of Dance

3 hours Study of cultural dance forms, the roots of formal dance practices, and contemporary dance styles as a reflection of societal shifts through the context of migration, colonization and globalization in the development of dance as a performing and participatory art form. Includes movement experiences and written analysis of dance practices.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2900 - Special Problems

3 hours Prerequisite(s): Consent of the department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2910 - Special Problems

1–3 hours Prerequisite(s): Consent of the department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3050 - Dance Kinesiology

3 hours Study of the science of movement as it relates to the specific needs of the dancer. Emphasis placed on kinesiological studies within the dance technique class for greater understanding of developing

strength, flexibility, balance and endurance as they apply to the mechanics of movement vocabulary in dance. Special attention is given to injury prevention.

Prerequisite(s): Students must have upper division status.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3230 - Choreographic Design

3 hours (0;6) Advanced techniques of choreographic design. Emphasis on structured improvisation and collaborative processes to develop sophisticated dance pieces, with opportunities for informal presentations.

Prerequisite(s): DANC 2230.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3400 - Arts Entrepreneurship

3 hours Empowers students with the entrepreneurial mindset and practical tools essential for thriving in the arts and creative industries. Explores how to combine creativity with business acumen to establish original, value-driven initiatives, whether working independently or within established arts organizations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3510 - Commercial Dance

3 hours (0;6) Focuses on expanding dance techniques specifically for the commercial dance industry. Students explore a range of styles used in commercial settings, honing adaptability and performance skills. Emphasis placed on strength and body conditioning, ensuring you develop a safe and sustainable approach to dance that supports longevity in your career.

Prerequisite(s): DANC 2510 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3620 - Intermediate Hip Hop

3 hours (0;6) Engage in challenging movement sequences and improvisational exercises, emphasizing musicality, precision, and versatility. Advance technical abilities through complex choreography, refined movement execution, and the cultivation of a distinct personal style.

Prerequisite(s): DANC 1600 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3720 - Intermediate Tap

3 hours (0;6) Explores complex tap vocabulary and intricate combinations, advancing technical proficiency and musicality. Examine tap's historical significance and its impact on musical theatre, concert dance, and hybrid styles.

Prerequisite(s): DANC 1700 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3800 - History of Concert Dance in the U.S.: 1900–Present

3 hours Historical study of concert dance from 1900 to the present.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4070 - Dance Pedagogy: The Teacher Prepares

3 hours

Instructional strategies and responsibilities common to the teaching of dance and conducting rehearsals for children through preprofessional levels.

Prerequisite(s): Students must be within the final two semesters of completing major or by consent of instructor.

DANC 2060X

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4400 - Intermediate Contemporary Dance

3 hours (0;6) Focus on the creative interpretation and artistic expression of complex choreography in contemporary dance. Refine technical skills with an emphasis on alignment, physical efficiency, and athleticism, pushing their physical and creative limits.

Prerequisite(s): DANC 2400 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4410 - Intermediate Ballet

3 hours (0;6) Focuses on ballet technique through a somatic lens. Attention to alignment, strength, musicality, coordination, and spatial awareness, while refining movement efficiency supported by anatomical knowledge.

Prerequisite(s): DANC 2410 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4500 - Musical Theatre Dance

3 hours (0;6) Advanced performative styles with emphasis on choreography for stage and film. Prepares students for commercial production auditions and supports choreographic practice within these styles

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4620 - Performance Production

3 hours 0;6 Immersive professional dance company. Experience in the creation and performance of a variety of dance works. Auditions are required prior to enrollment.

Prerequisite(s): Consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4900 - Special Problems

1–3 hours Problems must be approved by the department chair. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4910 - Special Problems

1–3 hours Problems must be approved by the department chair. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4920 - Dance Practicum

1–3 hours Supervised work in a position related to student's major, professional field of study or career objective.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

DANC 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

Data Science

DTSC 1015 - Computing and Programming Lab I

1 hour Provides the essential practical foundation for becoming an effective and self-sufficient data scientist. Through hands-on programming exercises, students gain experience with the tools, techniques, and workflows commonly used in data science practice. Topics include programming environments and version control (e.g., Python, Git, and GitHub), data handling and analysis libraries, containerization and virtualization for reproducible computing. The course emphasizes applied problem-solving and prepares students for success in advanced data science courses and professional data-driven environments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 1030 - Introduction to Computation and Programming I

3 hours Offers a foundational understanding of how computation addresses real-world problems. Designed for beginners, course develops skills in writing Python programs to achieve practical objectives, providing students with essential programming expertise.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 1035 - Computing and Programming Lab II

1 hour Provides the essential practical foundation for becoming an effective and self-sufficient data scientist. Through hands-on programming exercises, students gain more experience with the tools, techniques, and workflows commonly used in data science practice. Topics include programming environments and version control (e.g., Python, Git, and GitHub), debugging and testing data workflows, secure and ethical coding practices, automation for data pipelines, and fundamental networking and cloud concepts. The course emphasizes applied problem-solving and prepares students for success in advanced data science courses and professional data-driven environments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 1040 - Introduction to Computation and Programming II

3 hours Introduces students to the core computing concepts and skills necessary for data science. Course covers programming, computational thinking, and foundational techniques for data analysis and management, preparing students for advanced studies and applications in the data science field.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 3010 - Introduction to Data Science

3 hours Introduces student concepts, principles, topics, technologies, and the profession of data science. Students study and understand different types of data and how data can be acquired, stored, organized, analyzed, and presented to meet a variety of needs on data products. Assignments and the term project allow students to handle real-world data challenges. Students learn to use data to answer questions and make informed decisions. Will explore natural language processing, databases, financial modeling, statistical analysis, social network analysis, and data visualization. Ethical issues regarding data science process are also discussed.

Prerequisite(s): MATH 1650 and CSCE 1030, or consent from department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 3020 - Introduction to Computation with Python

3 hours Python is a language with a simple syntax and a powerful set of libraries. It is an interpreted language, with a rich programming environment, including a robust debugger and profiler. While it is easy for beginners to learn, it is widely used in many scientific areas for data exploration. This course is an introduction to the Python

programming language for students without prior programming experience. Data types, control flow and introduction to the analysis of program performance are covered. Real-world data from various areas are used as examples to demonstrate how to process and analyze these data with Python.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 3030 - Cyber Ethics for Data Scientists

3 hours Upper-division data analysis with emphasis on rules, code of conduct, ethics, and privacy are covered. Includes high-level definition and analysis of massive social media data, metadata, information, and misinformation. Study of trust models, zero-trust architectures, NIST cybersecurity and trust models, cyber information management, security planning, criminology, and law. Discussion of crimes committed via Internet, ranging from various white-collar financial crimes to the spread of viruses, malicious code, stalking, bullying, and web-based exploitation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 3901 - Data Science Internship Project

3 hours This internship course is focused on data science projects for undergraduates. The internship should be used to gain valuable work experience and increase the knowledge in the field of the major. Internship positions in a firm, industry, non-profit organization, or government entities allow students to further develop desired competencies and might lead to permanent employment.

Recommended: DTSC 3010.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4050 - Statistical Methods for Data Science and Analysis

3 hours Introduces students to both theories and applications of statistical methods. Students learn the core concepts of statistical computing and advanced techniques for data analysis, while working hands-on with real data using statistical tools.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4221 - Applied Data Science and Machine Learning

3 hours

Provides training in applied data science and machine learning. Designed for undergraduates who wish to pursue fast-track careers in data science or machine learning upon graduation. Tools, topics, and methodologies used in the industry are emphasized.

Covers four major themes: *computation*, *data science*, *machine learning*, and *deep learning*. The computational section of the course reviews foundational skills in basic and intermediate Python. The data science section emphasizes exploratory data analysis, including data transformation, data visualization, and statistical analysis. The machine learning section is the heart of the course. The focus is supervised machine learning, but we will briefly consider examples of unsupervised machine learning. The final section covers the foundations of deep learning and artificial neural networks.

Prerequisite(s): DTSC 3010 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4410 - Network and Data Security for Data Scientists

3 hours Explores network and data security in the context of today's digital enterprise. In addition to traditional network protocol and security issues, explores security issues unique to cloud environments, data protection, IoT ecosystems, ERP systems, and Blockchain deployments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4420 - Principles of Data Science Forensics

3 hours Provides students with insight into data and its connection to an event, social incident, or other subject matter. Fraud investigation, examination, and reporting with supporting evidence are covered. Fundamental concepts of the study of law such as enabling students to understand the basics of reading and briefing a digital forensics file as well as legal analysis and case procedure and discovery; securing organizational data; detecting and responding to cyber-based security breaches; emerging technologies and ensuring a secured computing environment for safeguarding company information.

Prerequisite(s): DTSC 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4430 - Cloud Security for Data Scientists

3 hours Focuses on Microsoft Azure and Amazon AWS and how to interact with each cloud provider through common terminology, cloud services, security concerns, and solutions to cloud-based security shortcomings. Topics include internet and web databases, mobile computing, cloud computing, energy efficiency, virtualization, hypervisors, offloading, and security protocols and models. Hands-on training implementing web and database servers and experiencing first-hand the power of real-world scenarios challenges students to learn more about AWS, Azure, and relevant cloud computing and security concepts.

Prerequisite(s): DTSC 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4501 - Principles of Data Science and Analytics

3 hours Introduction to the fundamentals of data science and data analytics. Provides the required foundational knowledge and practice to students to successfully integrate automatic methods and tools for qualitative and quantitative analysis. Other topics include CRTSP-DM; SEMMA; data assurance; policy; ethics; privacy and security; and principles and practice of technical, statistical and human behavior, as well as social and professional issues related to the handling of data.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4510 - Deep Learning for Data Scientists

3 hours A blend of foundational concepts and advanced topics in deep learning are addressed, inclusive of reviews in linear algebra, probability, and statistics. Emphasis is placed on hands-on projects and lab sessions, utilizing popular deep learning frameworks like TensorFlow or PyTorch. This practical approach helps students apply theoretical concepts to real-world scenarios. Additionally, guest lectures from industry professionals will be incorporated to provide valuable insights into the practical applications and future trends in the field of deep learning.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

DTSC 4525 - Generative AI and Large Language Models for Data Science

3 hours

Provides an in-depth exploration of the theory, practice, and societal impact of generative artificial intelligence. Students begin with the mathematical and machine learning foundations essential for understanding AI systems, then progress through deep learning architectures, transformers, and the principles of training and fine-tuning large language models (LLMs). Students gain hands-on experience through programming assignments that span prompt engineering, retrieval-augmented generation (RAG), multimodal applications, and multi-agent AI systems.

Beyond the technical foundations, the course emphasizes ethical responsibility, fairness, and bias in AI, while also surveying cutting-edge research trends and industry applications across text, image, and audio domains. By combining theory, implementation, and reflection, it prepares students to critically evaluate, design, and deploy generative AI solutions in real-world data science contexts. The semester culminates in a student-driven project presentation that showcases innovative applications of generative AI and LLMs.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

DTSC 4565 - Software Engineering for Data Science

3 hours Introduction to major topics in software engineering for data scientists such as: requirements specification, analysis and design, testing, project management, and implementation. Additional topics such as software life cycle models, the Unified Modeling Language (UML), agile software development techniques, configuration management, change control and version control tools, object oriented design, and project documentation will be discussed.

Prerequisite(s): DTSC 3020.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

DTSC 4777 - Virtual Reality Applications

3 hours Introduces students to Virtual Reality (VR) hardware, software, and provides an opportunity to apply this knowledge to applications for education, visualization, and games. Applies cutting-edge VR technology currently available in academia and industry. Topics include input devices, output devices, computer graphics principles for VR, geometric modeling principles for VR, human factors in VR, data visualization in VR, and traditional and emerging applications in VR. Students learn the value of visualization and how to best leverage visualization methods in VR. Students design, model, and program the VR environment by developing a complete VR application as a group project.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

DTSC 4900 - Special Problems in Data Science

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of Department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

DTSC 4902 - Special Topics in Data Science

3 hours Explores emerging and advanced topics in data science that extend beyond the regular curriculum. The specific theme varies by semester and may include subjects such as cloud computing, cybersecurity, data ethics, or generative AI. Students engage with recent research, hands-on projects, and real-world datasets to develop deeper analytical and computational skills. Provides an opportunity for students to expand their expertise and stay current with the evolving data science landscape.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

Decision Sciences

DSCI 2710 - Data Analysis with Spreadsheets

(BUSI 2305)

3 hours Collection, description and analysis of numerical data. Data presentation, tables, charts and graphs, descriptive statistics, analysis of time series and index numbers, sampling techniques and distributions, estimation, confidence intervals, with applications in quality control and productivity.

Prerequisite(s): Must be eligible for college level math course and be TSI complete.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of the Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 3710 - Business Statistics with Spreadsheets

3 hours Statistical inference for means and proportions, analysis of variance, correlation, simple and multiple regression. Extensive use of cases and spreadsheets.

Prerequisite(s): DSCI 2710 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 3870 - Management Science

3 hours Introduction to operations research for business decision making. Spreadsheet methods are used to evaluate the following: deterministic models; allocation problems, linear programming, sequencing and scheduling, and network models.

Prerequisite(s): ECON 1100, ECON 1110, MATH 1100. DSCI 2710 or consent of instructor; ACCT 2010 and ACCT 2020 with grades of C or better; MATH 1190 or equivalent.

Corequisite(s): Students majoring in the G. Brint Ryan College of Business must also enroll in BUSI 3100 along with DSCI 3870.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4330 - Enterprise Applications of Business Intelligence/Analytics

3 hours Current issues in the utilization of business intelligence/analytics (BI/A) in organizations. Topics include the concepts, methodologies and tools to efficiently and effectively implement BI/A endeavors. The focus is on understanding how BI/A is needed and used in organizations today and understanding how to resolve the often conflicting variety of BI/A offerings. Emphasis is placed on current and future directions of BI/A as relevant to projects underway in organizations across all levels of their value chains.

Prerequisite(s): BCIS 2610 or equivalent; DSCI 2710 or equivalent; and 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4510 - Modeling for Business Intelligence

3 hours How modeling for business intelligence systems can be utilized as a key element within a managerial decision process. Attention is paid to how and why such a model is used in a BI support system environment. Topics include the use of mathematical, statistical and business models that are both structured and semi-structured decision problems.

Prerequisite(s): DSCI 3870, BCIS 3610. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken DSCI course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4520 - Introduction to Data Mining

3 hours Knowledge discovery in large databases, using data mining tools and techniques. Topics include data exploration, modeling and model evaluation. Decision making in a case-embedded business environment is emphasized.

Prerequisite(s): DSCI 3710, BCIS 3610. 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken DSCI course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4700 - Analytics for Decision Making

3 hours

Study of the analytics that underlie the process of decision making and the information requirements of decisions; decision support tool selection, process improvement and applications development.

Must be taken during the graduating semester.

Prerequisite(s): BCIS 4660 or ACCT 4100 or LSCM 3960 or OPSM 3830; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken DSCI course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4800 - Internship

1–3 hours Supervised work in a job related to the student's career.

Prerequisite(s): DSCI 3710 or DSCI 3870; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); student must meet the employer's requirements and have consent of the department chair or ITDS undergraduate coordinator.

A maximum of 3 hours may be applied to supporting field elective courses with departmental approval.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

DSCI 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Design

ADES 1500 - Introduction to Communication Design

3 hours Overview of the communication design profession. Explores the fields of graphic design and user-experience design. A majority of time is spent looking at and interacting with graphic design images, illustrations, websites and user experience design examples to understand and identify terminology, examples of symbolic thinking, principles of Gestalt, form analysis, and semiotics. Explores ethics, creative teamwork, design planning, creative and design processes, and human communication.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1510 - Typography I

3 hours (0;6) Teaches students about typography's formal, plastic qualities. Topics covered include typographic anatomy and vocabulary, character manipulation, typographic semiotics and the relationship existing between type and color.

Prerequisite(s): ADES 1540 with a grade of C or better; communication design major (CDES-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1513 - Contextual Research Methods

3 hours Introduction to foundational contextual research methods for use in discovery and definition of interactive design systems.

Prerequisite(s): ADES 1543 with a grade of C or better; communication design major (CDES-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1540 - Foundations for Communication Design

3 hours (0;6) Computer hardware and software and their application in communication design.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800 with a grade of C or better. Successful completion of candidacy review.

All students are required to have their own laptop with the specified software for this course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1543 - Foundations of User-Centered Design

3 hours (2;4) Computer hardware and software and their application in User-Experience (UX) design.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800 with a grade of C or better. Successful completion of candidacy review.

All students are required to have their own laptop with the specified software for this course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1550 - Introduction to Fashion Design

3 hours Overview of fashion as art and as an industry, including manufacturing processes, terminology and line organization. Principles and elements of design as applied to fashion.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1560 - Fashion Studio 1

3 hours (0;6) Introduces students to the basic principles of garment design, sewing, and flat patternmaking using a blend of two-dimensional and three-dimensional formats.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800. ADES 1550 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 1625 - Introduction to Interior Design

3 hours Basic understanding of concepts, principles and elements as they relate to the interior design profession.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2510 - Typography II

3 hours (0;6) Teaches students about typography hierarchy and systems. Building on the skills learned in Type I, students engage with: grid, hierarchical relationships, formal typographic variables, and their effect on typographic systems.

Prerequisite(s): ADES 1510, ADES 2515 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2513 - Typographic Systems

3 hours (2;4)

Introduction to typography, hierarchy, and systems with an emphasis on digital applications and the impact of type on usability.

Prerequisite(s): ADES 1543 with a grade of C or better; communication design major (CDES-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2515 - Image Making and Color Theory

3 hours (0;6) Students develop conceptually-based analog, mixed media and digital illustration skills, as well as study and apply color theory.

Prerequisite(s): ADES 1540 with a grade C or better; communication design major (CDES-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2518 - Design Prototyping and User Testing

3 hours (2;4)

Introduction to foundational prototyping and user testing methods for use in the design of products.

Prerequisite(s): ADES 1513; ADES 2513 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2520 - Graphic Design

3 hours (0;6) Students design graphic design artifacts such as visual identity development and collateral which may include, but is not limited to, brochures, stationery ensembles and/or poster design.

Prerequisite(s): ADES 1510, ADES 2515 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2523 - Digital Patterns and Systems

3 hours (2;4) Introduction to the design and definition of digital elements, patterns, and systems for application in digital interfaces.

Prerequisite(s): ADES 1513 and ADES 2513 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2530 - Art Direction

3 hours (0;6) Students learn the strategic planning techniques and methodologies required to successfully develop and produce conceptually-based advertising campaigns. Students are required to conceive and art direct original photography.

Prerequisite(s): ADES 1510 and ADES 2515 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2550 - Fashion Studio 2

3 hours (0;6) Reinforces students' understanding of the relationship between the human body and complex garment design. Covers intermediate-level garment design, sewing, and flat patternmaking, with a focus on working with complex specialty fabrics and finishes.

Prerequisite(s): ADES 1560 with a grade of C or better, fashion design major (FASH-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2555 - Fashion Studio 3

3 hours (0;6) Focuses on advanced garment construction, sewing and flat patternmaking techniques. Through the application of advanced design methods and construction techniques for ready-to-wear suiting and machine knitting, students refine their ability to design, construct, and present professional-level fashion pieces.

Prerequisite(s): ADES 2550; ADES 2570 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2560 - Fashion Technology and Prototyping

3 hours (0;6) Introduces the basics of digital pattern design software and prototyping methods in fashion design. Students learn to digitize, develop and plot industrial patterns using current digital patternmaking programs.

Prerequisite(s): ADES 2550; ADES 2570 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2570 - Fashion Illustration and Media

3 hours (0;6) Focuses on both hand and computer rendering of fashion illustrations. Students develop a personal style and create professional presentation formats utilizing industry-standard computer graphics software.

Prerequisite(s): ADES 1560 with a grade of C or better; fashion design major (FASH-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2630 - Drawing for Interior Design

3 hours (0;6) Introduction to foundational understanding of 3-dimensional form and space, composition, drafting equipment, mechanical and digital drawing, architectural graphics. Emphasis on fundamental abilities to communicate design process/thinking and design solutions using 2- and/or 3- dimensional representation skills by means of digital/hand drawings, sketching, drafting, and/or modeling.

Prerequisite(s): ADES 1625; 2 of the following: ART 1600, ART 1700, ART 1800 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2640 - Interior Design: Design Studio I

3 hours (0;6) Introduction to space planning; emphasis on interior space, lighting, color, and materials as applied to interior design.

Prerequisite(s): ADES 2630 with a grade of C or better; interior design major (INTD-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2650 - Interior Design: Design Communications

3 hours (0;6) Digital and manual rendering methods, digital and manual presentation sketches, design presentation layout, lighting representation, digital and manual mood and inspiration boards, graphics specific to interior design presentation through the technologies that are mainly used by interior design professionals

Prerequisite(s): Interior Design major (INTD-BFA)

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2660 - Interior Design Technology for Design

3 hours (2;4) Software used in interior design applications. Software control for the production of industry standard drawings for both design presentation and construction documentation with more focus on the technologies that are mainly used by interior design professionals.

Prerequisite(s): Interior Design major (INTD-BFA)

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2670 - Interior Design: Materials and Specifications

3 hours Study of the basic characteristics and installation of materials and finishes used in the design of interiors, building codes, fire safety, and regulations for accessibility. Emphasis on writing specifications for FF&E (Furnishings, Fixtures, and Equipment) and non-loadbearing construction.

Prerequisite(s): Interior Design major (INTD-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 2700 - Design Thinking

3 hours Participatory lecture course provides students with a working knowledge of Design Thinking. Design Thinking describes a collection of theories, methods and habits of mind employed by individuals and groups interested in the power of responsible and responsive change.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3500 - Publication Design

3 hours (0;6) Students learn how to create verbal/visual narratives by integrating disparate components into conceptually-driven sequential print and interactive page layouts. Students begin to resolve the hierarchical, informational and expressive relationships existing between text and image in order to enhance communication.

Prerequisite(s): ADES 2510, ADES 2520 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3503 - Planning and Developing Interactive Systems

3 hours (2;4) Introduces students to the processes, methods, and technologies used in designing and developing complex interactive systems with an emphasis on user-centered design approaches.

Prerequisite(s): ADES 2518, ADES 2523 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3510 - Interaction Design I

3 hours (0;6) Students learn planning, research and production methods specific to the discipline of interaction design. Principles covered relate to information hierarchy, user/information interactions, user-experience and usability. Students receive exposure to relevant interaction design trends as means to analyze how technology can be used to solve complex problems.

Prerequisite(s): ADES 2510, ADES 2520 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3513 - Data Visualization and the Design of Information

3 hours (2;4) Introduces students to the design of complex data and information. An emphasis on how visual design and interaction principles impact users' ability to understand and navigate the information.

Prerequisite(s): ADES 2518, ADES 2523 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3520 - Packaging and Brand Design

3 hours (0;6) Students build on skills learned in previous design courses to conceive and produce identity marks and multifaceted package designs for new core brand extensions and brand usage books. Brand extensions may include artifacts that are appropriate for each student's unique client. These artifacts may be 3-dimensional, 2-dimensional, or interactive.

Prerequisite(s): ADES 3500, ADES 3510 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3530 - Art Direction II

3 hours (0;6) Students build on skills and processes learned in previous design courses to conceive and produce multifaceted advertising campaigns. Campaigns include artifacts that are appropriate for each student's unique client. These artifacts could be 2-dimensional, 3-dimensional or interactive.

Prerequisite(s): ADES 3500, ADES 3510 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3540 - Interaction Design II

3 hours (0;6) Students elaborate on skills acquired in Interaction Design I. In addition to reinforcing conceptual and formal interaction design skills, students solve complex problems across a range of digital platforms with an emphasis on user-centered solutions.

Prerequisite(s): ADES 3500 and ADES 3510 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3545 - Communication Design Studio

3 hours (0;6)

Developing additional competence in specialized areas.

Prerequisite(s): ADES 3500, ADES 3510 with a grade of C or better.

May be repeated for credit as topics vary for a maximum of 6 hours.

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3548 - Topics in User-Experience Design

3 hours (2;4) Developing additional competencies in specialized areas related to user-experience design.

Prerequisite(s): Must have completed ADES 3503 and ADES 3513 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3550 - Fashion: Draping

3 hours To prepare the student for a career in the field of fashion design; draping methods of creating patterns, advanced design, professional garment construction, and fitting are instructed.

Prerequisite(s): ADES 2555, ADES 2560 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3555 - Fashion Studio 4

3 hours (2;4) This advanced fashion design studio offers a comprehensive exploration of design, innovation and creative problem-solving. Students design and construct garment prototypes by exploring sustainable fashion practices, cutting-edge fashion technology, and niche markets.

Prerequisite(s): ADES 2555; ADES 2560, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3560 - Technical Design in Fashion

3 hours (2;4) Surveys the many facets of a technical designer in the fashion industry including terminology, fabrication, construction methods, specification sheets and technical packets for apparel.

Prerequisite(s): ADES 3550, ADES 3570; MDSE 2650 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3565 - Fashion Accessories

3 hours (2;4) Exploration of design process, product development, market research and production of fashion accessories.

Prerequisite(s): Fashion design major (FASH-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3570 - Computers in Fashion: Presentation

3 hours (0;6) Use of computers in development of apparel design. Presentation formats, development of fabric groups and merchandising of a fashion line utilizing commonly used, industry standard computer graphics software.

Prerequisite(s): ADES 2555, ADES 2560 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3575 - Computers in Fashion: Concept to Product

3 hours (0;6) To learn how current technology is utilized in the design and manufacturing of apparel and to examine ongoing developments in technology which may affect the future of the fashion and apparel industry.

Prerequisite(s): ADES 3550 and ADES 3570 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3590 - Fashion Design: Professional Practice

3 hours Presentation boards, interview and job search techniques. Design portfolio development.

Prerequisite(s): Fashion design major or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3630 - Interior Design: Design Studio II

3 hours (0;6) Architectural and interior elements of residential interiors — wall and floor space, reflected ceiling plans, lighting design and details, surface materials and treatments; furnishings in interior spaces.

Prerequisite(s): ADES 2640 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3635 - Interior Design: Interior Construction

3 hours Introduction to building systems and integrated building materials, detailing the related impact of the design and integration of materials in the interior design field. Examines the various lighting, mechanical, electrical, plumbing, fire suppression, data, acoustical, and communication systems integrated into buildings and how building materials are joined.

Prerequisite(s): ADES 2670.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3640 - Interior Design: Design Studio III

3 hours (2;4) Non-residential use interiors, developed floor plans, reflected ceiling plans, lighting design, elevations and details including schedules and furniture specifications.

Prerequisite(s): ADES 2650, ADES 2660, ADES 3630.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3645 - Interior Design: Lighting Design

3 hours Introduction to the lighting design of interiors with emphasis on the principles of lighting, design in interior spaces, fixture and placement, and exploration of computer visualization in lighting design.

Prerequisite(s): ADES 2660 and ADES 3635.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 3700 - Design Thinking: From Ideas to Action

3 hours Designed to help students learn to engage in a series of thought processes that can enable them to initiate and sustain positive change. *Design thinking* helps guide invention and innovation in ways that result in the creation and implementation of new products, services, systems and experiences that meet individual and collective sets of needs and desires. *Design thinking* guides decision-making in ways that help individuals, groups of people, businesses, and organizations frame and overcome problems and address less-than-desirable situations in the span of only a few seconds.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4515 - Cause-Based Design

3 hours (0;6) Exploring the role of communication design in addressing societal and cultural issues.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4518 - Cause-Based User-Experience Design

3 hours (2;4) Exploring the role of User-Experience Design in addressing complex societal and cultural issues.

Prerequisite(s): ADES 3548 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4520 - Graphic Design Advanced Campaigns

3 hours (0;6) Students spend the semester conceiving, developing and producing a capstone project in graphic design. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients.

Prerequisite(s): 6 credits of ADES 3545 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4522 - Graphic Design Media-Based Campaigns

3 hours (2;4) Students in the tandem courses (ADES 4520 and ADES 4522) spend the semester conceiving, developing and producing a capstone project in graphic design. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients.

Prerequisite(s): ADES 3520, ADES 3530 with a grade of C or better.

Corequisite(s): Must be taken concurrently with ADES 4520.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4523 - Advanced UX Campaigns

3 hours (2;4) Guides students through the research, definition, and design phases of an interactive system, producing a capstone project and case study.

Prerequisite(s): ADES 3548 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4525 - Graphic Design Final Portfolio

3 hours (0;6) Students develop a minimum of one new comprehensive graphic design campaign in addition to polishing preexisting campaigns.

Prerequisite(s): ADES 4541, ADES 4520 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4528 - Final Portfolio in UXD

3 hours (2;4) Prepares students to pursue career opportunities through the development of a final project case study and a portfolio that presents selected projects from classroom or professional experiences.

Prerequisite(s): ADES 4518 and ADES 4523 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4530 - Art Direction Advanced Campaigns

3 hours (0;6) Students spend the semester conceiving, developing and producing a capstone project in art direction. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients.

Prerequisite(s): ADES 3530 and ADES 3540 with a grade of C or better.

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Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4532 - Art Direction Media-Based Campaigns

3 hours (2;4) Students in the tandem courses (ADES 4530 and ADES 4532) spend the semester conceiving, developing and producing a capstone project in art direction. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients.

Prerequisite(s): ADES 3520, ADES 3530 with a grade of C or better.

Corequisite(s): Must be taken concurrently with ADES 4530.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4533 - Advanced Communication Design Studio

3 hours (0;6) Senior graphic design students continue building on concept, process, production, and research skills as they study current developments and applications in design.

Prerequisite(s): 6 credits of ADES 3545 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4535 - Art Direction Final Portfolio

3 hours (0;6) Students prepare for entry into the profession by polishing their portfolio's content, form and presentation. Students must integrate both the print and interactive media presentations of their work. In addition, basic job research, interview and networking are essential components of this course. Students must successfully pass the communication design final portfolio review in order to pass the class.

Prerequisite(s): ADES 4530 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4540 - Communication Design Studio

3 hours Developing additional competence in special areas.

Prerequisite(s): Junior or senior standing in CVAD and consent of instructor; specific studio courses may require additional prerequisites.

May be repeated for credit up to a total of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4541 - Portfolio Development

3 hours (0;6) Students develop a suite of portfolio presentation and self-promotional materials spanning both print and interactive media. Basic job research, interview and networking skills are essential components of this course.

Prerequisite(s): 6 hours of ADES 3545 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4545 - Communication Design Lecture Topics

3 hours Developing additional competence in special areas.

Prerequisite(s): Junior or senior standing in CVAD and/or consent of instructor; specific courses may require additional prerequisites.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4550 - Fashion: Pre-Collection

3 hours (2;4) Design patternwork and construction of garments. Emphasis on fit, professional construction methods, research and appropriateness for a target market.

Prerequisite(s): ADES 3560 and ADES 3590.

Not offered every term/semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4555 - Fashion: Collection

3 hours (2;4) Design refinement, pattern work and construction of senior collection.

Prerequisite(s): ADES 4550 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4560 - Fashion Design Concepts

3 hours Design process, research, conceptual ideation and creative interpretation of fundamental garment components and features while acknowledging function and production constraints. Emphasis is on creative design, sketching and development of a design process notebook.

Prerequisite(s): ADES 3555 with a grade of C or better.

Not offered every term/semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4590 - Fashion Design Studio

3 hours (0;6) Developing competence in special areas.

Prerequisite(s): Fashion design major (FASH-BFA).

May be repeated for credit up to 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4595 - Exploration: Fashion Design

3 hours Research on selected topics or projects in fashion design. Includes field trips and classroom lectures.

Prerequisite(s): Fashion design major (FASH-BFA).

May be repeated for credit up to 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4615 - Topics in Interior Design

3 hours Research on selected topics or projects in interior design. The course includes field trips and classroom lectures.

Prerequisite(s): Interior Design major or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4625 - Interior Design: Professional Practice

3 hours Business and office practice, fees and commissions, preparing budgets and estimates, contracts, professional ethics and job opportunities.

Prerequisite(s): Interior Design major (INTD-BFA).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4630 - Interior Design: Design Studio IV

3 hours (2;4) Design of public and non-residential spaces; concept development; systems furniture; ergonomics; lighting design; integrated building systems. Preparation of design presentation and design development drawings.

Prerequisite(s): ADES 3635, ADES 3640, ADES 3645 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4640 - Interior Design: Design Studio V

3 hours (2;4) Application of comprehensive problem-solving techniques, including research, programming, concept development, space planning, building code review. Design, detailing and systems integration for a large commercial space.

Prerequisite(s): ADES 4630 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ADES 4700 - Professional Internship

3 hours In-training programs offered in cooperation with approved professional businesses in communication design, fashion design, and interior design. Students must receive consent of faculty prior to the start of the job experience. Term reports are required of students and employers.

Prerequisite(s): Interior design students must have completed ADES 3640 with a grade of C or better, and consent of instructor. Communication and Fashion Design students must have consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

Digital Business and Ecommerce

DBUS 2050 - Introduction to Digital Retailing

3 hours Survey ecommerce and its application to global consumer products and services for business-to-business and business-to-consumer markets. Introduction to ecommerce theory, terminology, logistics, industry participants, and career opportunities. Emphasis is placed on emerging technologies including artificial intelligence (AI), mobile commerce, and social platforms that are shaping the future of digital retail.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

DBUS 2080 - E-commerce Platforms

3 hours A study of fundamentals, key concepts and practices of ecommerce platforms in digital retailing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

DBUS 3090 - Digital Channel Strategies

3 hours Survey of emerging digital technologies and their impact on consumer experience. Emphasis is on the development of a digital channel strategy through the exploration of new tools (e.g., blogs, Customer Relationship Management systems, artificial intelligence [AI]).

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 3190 - Digital Retail Marketing Campaigns

3 hours (2;2) Omni-channel marketing and its impact on digital consumer experiences. Emphasis is on evaluating digital technologies, including AI tools (e.g. SEMRush) influencing SEO, social media metrics, and mobile/email marketing. Investigates the ethical implications and impact of using AI in marketing.

Prerequisite(s): DBUS 2050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

DBUS 3290 - Customer-Centric Retailing with Digital CRM

3 hours Provides hands-on experience needed to leverage advanced Customer Relationship Management (CRM) technologies, including artificial intelligence (AI) tools to drive customer-centric retail strategies. Students utilize customer data platforms (e.g., Salesforce Sales Cloud, Agentforce) to optimize business decisions using predictive insights and automation.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 3590 - Digital Order Fulfillment and Customer Service Strategies

3 hours An in-depth study of the various digital strategies and methods retailers employ to get their products in the hands of their customers. Analysis of rapidly evolving eCommerce order fulfillment practices for business-to-consumer models. Topics will include digital fulfillment models, systems technology platforms, inventory management, consumer behavior and real-time product availability to meet consumer experience, delivery and customer service expectations.

Prerequisite(s): Junior standing required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 4000 - Digital Study Tour

3 hours Experience eCommerce retail and digital industries through visits to leading eCommerce retail, social media and digital corporate headquarters, retail technology consumer testing store environments and technology work campuses. Includes field study in industry centers for ecommerce and digital technology in selected U.S. or international destinations. Designed to engage students in an intense study of an area pertinent to the field of digital retailing. Pre-trip and post-trip classes required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Summer Only

DBUS 4070 - Retail Web Analytics

3 hours A study of key concepts, diagnostic approaches, techniques and practices of web analytics used to create measurable value for the digital retailing channel.

Prerequisite(s): A grade of C or better in DBUS 2050 and MDSE 2700 and junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 4090 - Digital Merchandising

3 hours Applications of site merchandising and development of digital content for ecommerce. Emphasis on merchandising processes that convey product characteristics to the consumer from production through distribution.

Prerequisite(s): DBUS 2080 and DBUS 2050 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

DBUS 4370 - Digital Retailing Analytics Tools and Insights

3 hours Application of analytical tools to derive data-driven insights to improve customer experience, increase sales, and optimize operations in the retail industry.

Prerequisite(s): Junior or Senior standing.

Meets with DRTL 5370.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

DBUS 4860 - Digital Branding in Practice

3 hours Understands, analyzes and develops digital brand strategies by utilizing digital brand cases. Emphasis on brand mix, brand community, brand positioning, brand extension, and brand evaluation with contemporary brand tactics and metrics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 4900 - Special Problems

1–3 hours Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 4910 - Special Problems

1–3 hours Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

DBUS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

Early Childhood Education

EDEC 1010 - Learning With and From Children

3 hours Introduction to early childhood education and care as a field of study that centers on young children's play, experiences and identities. Focuses on observation to account for children's knowledge-production within their everyday social practices. Students engage in material and intellectual inquiry that explores the relationships between children's experiences and their human and more-than-human (e.g. technology, the natural world, material objects, etc.) worlds.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 2900 - Special Problems

1–3 hours Open to freshman and sophomore students. Students explore problem independently. Problems are chosen by the student and developed through conferences with the instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 3613 - Childhoods Across Time, Space and Place

3 hours Introduction to the study of children and childhoods. Centered on the sociology of childhood and will explore the study of children and childhoods across time, space and place in order to better understand complexity of young children. Topics to be explored include play, children and popular culture, peer cultures, and issues impacting childhood.

Recommended: EDEC 1010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 3700 - Pedagogies and Practices of Early Childhood

3 hours Considers the significant role that environments and aesthetics play in children's experiences, learning, and development and will examine the range of local and global environments that children inhabit, as well as the children and childhoods produced in and through the policies, practices and pedagogies of those spaces.

Recommended: Admission to teacher education program; EDEC 3613.

Must be taken in Block A. Course serves as a centering course for Block A and requires attendance in seminars.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 3750 - Young Children in Schools, Families and Communities

3 hours Focuses on children's relationships with their peers, adults and environments using dynamic ecological frameworks that account for children's local and global contexts. Through case studies, explores the ways that children's sociocultural identities and funds of knowledge play a role in their negotiations of their social environments.

Recommended: Admission to teacher education program; EDEC 3613.

Must be taken in Block A. Requires field hours at an offsite location.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4243 - Environmental Processes and Assessment

3 hours (3;3;0) Considers early childhood learning processes as well as implications for individual, group and program assessment. Focus areas include formal, informal and holistic assessment instruments as well as learning environment materials and resources. Implications for technology in assessment and management are discussed. Laboratory experiences (20–25 hours) required.

Recommended: HDFS 4233 (for DFST majors); EDEC 3613 (for all EC–6 certification students).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4633 - Nurturing Children's Social Competence

3 hours Facilitating the social and emotional skills of young children. Incorporates an ecological approach to significant influences on self-esteem and self-concept including family, creativity and individual differences. Includes analysis of play theory and research. Field experience required

Recommended: EDEC 3613.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4800 - Studies in Development, Family Studies and Early Childhood Education

1–3 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4810 - Studies in Development, Family Studies and Early Childhood Education

1–3 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4900 - Special Problems

1–3 hours Open to junior and senior students. Students explore a problem independently. Problems are chosen by the student and developed through conferences with the instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEC 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Economics

ECON 1100 - Principles of Microeconomics

(ECON 2302)

3 hours Business organization and market economy; theory of the firm; techniques of economic analysis in current economic problems; comparative economic systems.

Prerequisite for most upper-level ECON courses.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 1110 - Principles of Macroeconomics

(ECON 2301)

3 hours Principles of economic organization and growth in modern, industrial society; money and banking, monetary and fiscal policy; determinants of national income and business fluctuations.

Prerequisite for most upper-level ECON courses.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3000 - The Economics of Everything

3 hours

Applying economic principles of opportunity cost, sunk cost, efficient economic decision making, supply and demand, externalities, and market power to a wide range of individual decisions and current social issues.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3050 - The Economics of Consumption

3 hours Micro and macroeconomic concepts and the role of consumers in the U.S. economy; the time value of money; consumer credit; interest rates, and other financial information important to consumer decision-making.

Prerequisite(s): ECON 1100, ECON 1110.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3150 - Economics of Discrimination

3 hours Economic methods and models that identify, quantify, and analyze the economic effects of discrimination; statistics and statistical models; intergroup differentials in areas of income, employment, and education.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3200 - Behavioral Economics for Non-Economics Majors

3 hours Psychological, cognitive, emotional, social, and cultural factors in decision-making; discrepancies between neoclassical economic theory and behavioral economics theory. Course not open to BA, BS, or BBA Economics majors.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3300 - Webonomics

3 hours Production, distribution, and consumption of goods, services, and ideas over the World Wide Web; legal, economic, social, and technical aspects of national and international policy; Internet ecosystem; technological convergence; regulation; intellectual property; privacy and cybersecurity; artificial intelligence and machine learning.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3400 - Applied Machine Learning

3 hours Introduces fundamental methods in data analytics with machine learning; practical applications in economics and policy analysis; hands-on analytics, primarily using Python.

Prerequisite(s): ECON 4630 or STAT 3680 or DSCI 3710 or GEOG 4185 or PSCI 3300.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3550 - Intermediate Micro-Theory

3 hours Demand and supply analysis, consumer choice theory, production and cost theory and market equilibrium under different market structures.

Prerequisite(s): ECON 1100 with a grade of C or better; MATH 1190 or MATH 1710, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3560 - Intermediate Macro-Theory

3 hours Factors affecting income level, employment and output; national income concepts and measurements; application of economic policy to current problems.

Prerequisite(s): ECON 1100 and ECON 1110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4020 - Money and Financial Institutions

3 hours Nature and functions of money; modern banking institutions and central banks; credit control and monetary stabilization.

Prerequisite(s): ECON 1100, ECON 1110.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4030 - Economic Cycles and Forecasting

3 hours

Focuses on time series analysis and forecasting methodologies applied to problems typically encountered in economics and finance. Computer applications will be used to reinforce the theoretical models.

Prerequisite(s): ECON 1100 and ECON 1110; ECON 4630 with a grade of C or better.

ECON 4630 can be replaced with STAT 3680 or DSCI 3710 with a grade of C or better.

May not be repeated at the graduate level as ECON 5080.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4100 - Comparative Economic Systems

3 hours Examination of the theoretical foundations, structure and performance of various economies of the world. Theoretical coverage emphasizes decision making, price systems, planning, information

and motivation, rather than an ideological approach. Topics of modern capitalism are covered as well as the non-Western economies of the former Soviet Union, Eastern Europe and China.

Prerequisite(s): ECON 1100 or ECON 1110 or consent of department.

May not be repeated at the graduate level as ECON 5070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4140 - Managerial Economics

3 hours Integrates microeconomic theory with accounting, finance, marketing and production management. Demand and cost estimation and forecasting; pricing; business strategy; case studies.

Prerequisite(s): ECON 3550 and MATH 1190.

May not be repeated at the graduate level as ECON 5140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4150 - Public Economics and Policy Analysis

3 hours Methods for analysis of government economic intervention policies and of the response of economic agents to government actions; taxation; externalities; public goods; social insurance; and income distribution.

Prerequisite(s): ECON 3550.

May not be repeated at the graduate level as ECON 5150.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4290 - Labor Economics

3 hours Labor supply and demand; minimum wage; gender and racial wage gaps; the interaction of the labor market with migration and immigration, educational returns, and income inequality.

Prerequisite(s): ECON 3550.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4420 - Open Economy Macroeconomics

3 hours Macroeconomic policy options and impacts in the open economy; international monetary reforms; examinations of the impact of balance of payments adjustments under different monetary systems; role of foreign investment in economic growth.

Prerequisite(s): ECON 1100 and ECON 1110.

May not be repeated at the graduate level as ECON 5420. Usually offered in spring.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4440 - Economics of Natural Resources and Environment

3 hours Natural resource management and use: problems of renewable and non-renewable resources, including scarcity and market responses, role of property rights, externalities, benefit-cost analysis and energy policy with emphasis on Texas, analysis of environmental problems and policy formulation.

Prerequisite(s): ECON 1100 or consent of department.

May not be repeated at the graduate level as ECON 5440.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4450 - Game Theory

3 hours Basic elements of models of strategic interactions; pure- and mixed-strategy Nash equilibria; perfect and imperfect information; subgame-perfect equilibria; signaling; and Bayesian equilibria.

Prerequisite(s): ECON 3550.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4500 - The Economics of Sports

3 hours Examination of public policy questions about professional and college sports using economic models of sports industries. Topics include theory of the firm, the organization of sports and entertainment industries, sports labor markets, racial discrimination and pricing schemes specific to sports markets.

Prerequisite(s): ECON 1100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4510 - History of Economic Thought

3 hours Economic thought since the Middle Ages.

Prerequisite(s): ECON 1100, ECON 1110.

May not be repeated at the graduate level as ECON 5090.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4550 - Law and Economics

3 hours Introduction to the mutual interaction between legal systems and economic activity. Topics include an introduction to legal systems and institutions, legal analysis, application of economic concepts to various legal doctrines, contracts, torts, criminal law, constitutional law, regulation and antitrust. Emphasis is placed on using economic theory to develop and test hypotheses regarding the effects of laws on incentives and economic behavior, the allocation of resources, and the distribution of income.

Prerequisite(s): ECON 1100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4630 - Data Analysis in Economics

3 hours (3;1) Research methodology for business and the social sciences; descriptive statistics; basic probability theory; discrete and continuous probability distributions; hypothesis testing; and introductory regression techniques. Lab with Microsoft Excel covers essential functions and data analysis.

Prerequisite(s): ECON 1100; MATH 1100 or MATH 1180.

May not be repeated at the graduate level as ECON 5630.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4650 - Economics of Cities

3 hours Economic forces that cause cities to form and that have shaped cities over recent centuries; interplay of central cities and suburbs; the determinants of where people live and work; and the economics of housing and transportation within cities.

Prerequisite(s): ECON 3550.

May not be repeated at the graduate level as ECON 5750.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4850 - International Trade

3 hours Ricardian and Neoclassical economic theories; Heckscher-Ohlin and specific-factors models relevant to trade, immigration, foreign direct investment, and welfare; the political economy of trade policies; global and preferential trading arrangements; the global supply chain; and intra-industry trade.

Prerequisite(s): ECON 1100 and ECON 1110, or consent of department.

May not be repeated at the graduate level as ECON 5850.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

ECON 4855 - U.S.-Mexico Economic Relations

3 hours Examines the vital economic relationship between the U.S. and Mexico with a particular emphasis on the Texas-Mexico relationship. Among the topics covered are goods and services trade, migration, remittances, border economy, contraband (including drugs), environmental issues and the North American Free Trade Agreement.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4870 - Introduction to Econometrics

3 hours Focus on simple and multiple regression using ordinary least squares (OLS). Topics include linear and intrinsically linear regression models; estimation under ideal and non-ideal conditions; linear hypothesis testing; multicollinearity and models with dummy variables.

Prerequisite(s): ECON 4630 or STAT 3680 or DSCI 3710; MATH 1190 or MATH 1710.

Usually offered fall and spring semesters. May not be repeated at the graduate level as ECON 5640.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4875 - Empirical Linear Modeling

3 hours Develops the tools necessary to analyze, interpret and develop empirical applications of econometric estimation procedures. Exploration of an assortment of applied problems that are typically encountered in quantitative research with particular attention given to the examination of real-world, economic and other business-related phenomena. Particular attention is given to developing proficiency in the following four areas: organizing and manipulating data, estimating linear regression models, interpreting econometric results and computer output, and working with computer software.

Prerequisite(s): ECON 4870.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4920 - Economics Internship

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Student must be an economics major and have completed ECON 1100, ECON 1110, ECON 3550, and ECON 3560 with a grade of C or better in each course; must have completed at least 90 semester credit hours with at least 9 advanced ECON hours; must have a minimum overall economics GPA of 3.0; must have an offer to participate in an internship from an employer; and must complete internship enrollment request form and have consent of department chair.

Pass/no pass only. May be repeated for credit as topics vary for a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

ECON 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

Educational Curriculum and Instruction

EDCI 3500 - Knowing and Learning in Mathematics, Science and Computer Science

3 hours Psychological foundations of learning. Problem solving in mathematics, science and computer science education, including utilization of technology. Principles of expertise and novice understanding of subject matter. Implications of high-stakes testing. Foundations of formative and summative assessment.

Prerequisite(s): Admission to the Teach North Texas program, a university grade point average of at least 2.50 and TNTX 1100 (may be taken concurrently) or consent of a Teach North Texas advisor in the College of Science.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 3800 - Professional Issues in Teaching

3 hours Overview of American education, including history, purposes, legal bases, school organization, education as a profession and analysis of characteristics required for professional success.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 3830 - Teaching/Learning Process and Evaluation

3 hours Examines the processes of human learning and development as they relate to teaching in diverse EC–12 classroom settings. Understanding of these processes is applied to lesson design, instructional strategies and assessment.

Prerequisite(s): Junior standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 4000 - Classroom Interactions

3 hours (3;1) Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings). Examination of gender, class, race and culture in mathematics, science and computer science education. Overview of policy related to mathematics, science and computer science education. This course requires approximately 10 hours of fieldwork in schools. Candidates must be able to pass a criminal background check.

Prerequisite(s): TNTX 1200, EDCI 3500. Admission to the Teach North Texas Program, a university grade point average of at least 2.50.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 4010 - Classrooms as Communities

3 hours Guides preservice teachers in cultivating a reflective, professional teacher identity while building and sustaining a classroom learning community that effectively serves all students. Throughout this course, preservice teachers will position themselves as practice-based researchers in a clinical field experience and plan the initial stages of a research project that will be completed in the final semester of the EC-6 program

Recommended: Admission to teacher education program. Concurrent enrollment in EDSP 4350, EDEE 3350, EDRE 4850, EDRE 4860.

Must be taken in Block B. Requires field hours at an offsite location.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 4060 - Content Area Reading

3 hours (0;0;3) Provides an overview of the reading process with emphasis on reading to learn in the content area. Provides knowledge and skills for identifying reading problems, modifying instructional materials and processes, and using writing to promote learning and thinking in the content areas.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDCI 4070 - Teaching in a Multicultural Classroom

3 hours (0;0;3) Provides knowledge and skills required for developing and implementing challenging instruction in the multilingual classroom.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4108 - Student Teaching in the Secondary School

3 hours Teaching under supervision.

Prerequisite(s): With the exception of student teaching, all course work on the degree plan must be complete. Senior standing and admission to teacher education are required. The student must be able to pass a criminal background check.

Corequisite(s): EDCI 4118.

Required for those seeking secondary or all-level certification. See Student Teaching Program for details. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4118 - Student Teaching in the Secondary School

3 hours Teaching under supervision.

Prerequisite(s): With the exception of student teaching, all course work on the degree plan must be complete. Senior standing and admission to teacher education are required. The student must be able to pass a criminal background check.

Corequisite(s): EDCI 4108.

Required for those seeking secondary or some level certification. See Student Teaching Program for details. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4138 - Student Teaching Secondary School – Art

3 hours Teaching art in secondary schools under supervision. Student must be able to pass a criminal background check.

Recommended: ARTE 3753, ARTE 3770, ARTE 4750, ARTE 4760, ARTE 4795, ARTE 4780, ARTE 4790, EDCI 4060, EDCI 3800. Admission to the visual art studies program, the teacher education program, senior standing, 2.75 GPA in reading and professional development courses. Concurrent enrollment in EDEE 4101 is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4148 - Student Teaching for Music Education

3 hours Teaching under supervision. For music education majors only. Required for those seeking all-level or secondary certification. See Student Teaching program for details. Must be able to pass a criminal background check. Pass/no Pass only.

Recommended: EDCI 3800, HDFS 3123, MUED 3200. EDRE 4820 or EDCI 4060, MUED 4109 or MUED 4103, MUED 4203 or MUED 4209, secondary piano proficiency, theory proficiency, concentration proficiency, computer proficiency and senior standing. Concurrent enrollment with EDME 4103.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4500 - Project-Based Instruction in Math, Science and Computer Science

3 hours (3;2) Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings). Examination of gender, class, race and culture in mathematics, science and computer science education. Overview of policy related to mathematics, science and computer science education. This course requires approximately 20 hours of fieldwork in schools. Candidates must be able to pass a criminal background check.

Recommended: TNTX 1200, EDCI 3500. Admission to the Teach North Texas Program, a university grade point average of at least 2.50.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science

3 hours (0;0;6) Teaching under supervision. Required for students seeking secondary certification. See the Teach North Texas program for details. Must be able to pass a criminal background check.

Recommended: TNTX 1100, TNTX 1200; EDCI 3500, EDCI 4000, EDCI 4500; and senior standing. Concurrent enrollment in EDCI 4618, EDCI 4628.

Required for students seeking secondary certification. See the Teach North Texas program for details.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science

3 hours (0;0;6) Teaching under supervision. Required for students seeking secondary certification. See the Teach North Texas program for details. Student must be able to pass a criminal background check.

Recommended: TNTX 1100, TNTX 1200; EDCI 3500, EDCI 4000, EDCI 4500; and senior standing. Concurrent enrollment in EDCI 4608, EDCI 4628.

Required for students seeking secondary certification. See the Teach North Texas program for details.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4628 - Apprentice Teaching Seminar in Science, Math and Computer Science

1 hour Discussions include apprentice teaching experience. Contemporary critical issues in education. Preparation for the state certification exam. Must be taken in the same semester as EDCI 4608 and EDCI 4618. Must pass EDCI 4608 and EDCI 4618 in order to receive credit for the seminar. Must be able to pass a criminal background check.

Recommended: TNTX 1100 and TNTX 1200; EDCI 3500, EDCI 4000 and EDCI 4500; satisfactory completion of the preliminary portfolio; and senior standing. Concurrent enrollment in EDCI 4608 and EDCI 4618.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4800 - Studies in Education

1–3 hours Organized classes for program needs and student interest.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4810 - Studies in Education

1–3 hours Organized classes for program needs and student interest.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4840 - Instructional Strategies and Classroom Management

3 hours (0;0;3) Taken during the semester immediately preceding student teaching, this course provides knowledge and skills required for organizing and directing various instructional strategies in the secondary classroom. Content includes teaching strategies, approaches to classroom management and discipline, student motivation, student and teacher assessment and evaluation, and the use of media and technology in the classroom. Instruction, assignments, directed field experience and other class activities may take place on site in a school setting. Must complete 55 hours of field experience in assigned middle and high schools.

Prerequisite(s): Junior standing, admission to Teacher Education, and completion of or concurrent enrollment in all education course work excluding student teaching.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDCI 4841 - Instructional Strategies and Classroom Management

3 hours Guides preservice teachers in cultivating a reflective, professional teacher identity while building and sustaining a classroom learning community that effectively serves all students. Preservice teachers study culturally responsive, ethical teaching practices as well as orientations to classroom organization viewed through an equity lens. Throughout this course, preservice teachers position themselves as practice-based researchers in a clinical field experience.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Educational Foundations

EDUC 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDUC 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Educational Leadership

EDLE 2010 - How Schools Work

1.5 hours Prepares teachers for an understanding of how schools work and the influences by the local, state and federal levels. Particular attention will be given to topics such as community; school funding; assessment; curricular programs; policy; roles of people in schools; professional learning; professional associations; and school safety.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Educational Psychology

EPSY 2000 - Introduction to Gifted Education and Advanced Academics

3 hours An introduction to the field of gifted education by examining historical and current issues related to gifted education, advanced academics and talent development. Topics covered address meeting the academic, social, emotional and psychosocial needs of advanced learners from diverse backgrounds.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EPSY 2010 - How People Learn

3 hours Examines human learning across the multiple contexts of our daily lives, especially those outside of school. Considers the role of social context and culture in shaping learning processes; the various ways learning is demonstrated; and the ways people engage with/in disciplinary practices in their daily lives.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EPSY 3000 - Foundations of Educational Psychology

3 hours Provides an overview of psychological principles as applied to teaching and learning. Topics include learning theories, self-perception, motivation, development and assessment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EPSY 3010 - Identifying and Supporting Advanced Learners in the Classroom

3 hours Provides educators with strategies and techniques to meet the academic and social-emotional needs of advanced learners in the classroom. Topics include (a) identification of gifts and talents, (b) instructional approaches including curriculum development, appropriate pedagogy, grouping and differentiation, (c) effective programming and services, (d) and methods to support social-emotional and psychosocial skill development. Special emphasis is on serving advanced learners from diverse backgrounds.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EPSY 3013 - Reading and Understanding Research

3 hours Students learn how to identify and critique elements of quantitative, qualitative and mixed-methods research designs as well as recognize and interpret basic measurements and statistics commonly reported in educational and psychological research.

Prerequisite(s): Junior or senior standing; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EPSY 3020 - Introduction to Creativity in the Classroom

3 hours An introduction to the field of creativity by examining prominent models and theories, situating the field in the larger educational context, and providing strategies for how to design classrooms supportive of creative thinking. Furthermore, in the state of Texas, a gifted/talented student includes one who exhibits high performance capability in an intellectual, creative, or artistic area, making this course particularly relevant for educators working with students with creative potential. Topics covered also include characteristics of creative individuals and elements of creative pedagogy to maximize student learning in the classroom especially for advanced learners from diverse backgrounds.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Electrical Engineering

EENG 1910 - Introduction to Electrical Engineering

3 hours (2;2)

Learning to Learn (L2L) is based on sound cognitive and pedagogical techniques that improve learning outcomes and make lifelong learning habitual. Students develop an understanding of how engineering is learned and how they can facilitate and develop the lifelong learning process, both individually and in teams. Topics covered include consciousness and self-awareness, knowledge representation, cognition, learning styles, memory, language, reading, effective verbal and written communication, project-based learning, critical thinking, problem solving and creativity, design process, globalization and contemporary issues, professionalism and ethics.

Prerequisite(s): Electrical Engineering major or Pre-Electrical Engineering major or consent of department.

Pre-Electrical Engineering majors and Electrical Engineering majors must attain a C or better in this course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2610 - Circuit Analysis

3 hours Introduction to electrical elements, sources and interconnects. Ohm's law, Kirchoff's law, superposition and Thevenin's theorems are introduced. The resistive circuit, OP Amp, RL, RC circuits, Sinusoidal analysis.

Prerequisite(s): MATH 1720 with a C or better or MATH 1830 with a C or better.

Corequisite(s): PHYS 2220/PHYS 2240 (MATH 3410 and EENG 2611 for electrical engineering students) with a C or better in each course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2611 - Circuit Analysis Lab

1 hour Supplements the material of EENG 2610 - Circuit Analysis providing practical hands-on experience with circuit implementation as well as analysis using PSpice and MATLAB. Practical verification and testing of fundamental laws and analysis methods. Includes practice safety in the laboratory, using test equipment, implementing and testing electric circuits on breadboards and prototype boards.

Corequisite(s): EENG 2610 (must also be completed with a grade of C or better).

Lab must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2620 - Signals and Systems

3 hours Elementary concepts of continuous-time and discrete-time signals and systems. Linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms and frequency-domain analysis of LTI systems. Laplace transforms, z-transforms and rational function descriptions of LTI systems.

Prerequisite(s): EENG 2610 (and EENG 2611 for electrical engineering students). Both must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2621 - Signals and Systems Lab

1 hour Designed to supplement the contents of EENG 2620 and to provide students hands-on and practical experience with signals and systems and their properties. Using the MATLAB tool, students will explore concepts including signal transformations such as shifting, scaling and time-reversal, sampling of signals and signal transforms such as the Fourier Transforms.

Prerequisite(s): EENG 2610 and EENG 2611; must complete or be co-enrolled in either MATH 2730 or MATH 3410 (all courses must be completed with a C or better).

Corequisite(s): EENG 2620 (which must be completed with a C or better).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2710 - Digital Logic Design

3 hours History and overview; switching theory; combinational logic circuits; modular design of combinational circuits; memory elements; sequential logic circuits; digital system design; fault models and testing.

Prerequisite(s): Engineering or engineering technology majors.

Corequisite(s): EENG 2711 for electrical engineering majors (which must be completed with a C or better).

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2711 - Digital Logic Design Lab

1 hour Provides the students an opportunity to design and debug digital circuits using logic gates and flip-flops, SSI, MSI integrated circuits and PLA's. The course also reinforces the concepts they learn in combinational and sequential logic and enhances report writing skills of the students.

Prerequisite(s): This class is restricted to College of Engineering students.

Corequisite(s): EENG 2710 (which must be completed with a C or better).

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2900 - Special Problems

1–3 hours Individualized instruction in theoretical or experimental problems in electrical engineering.

Prerequisite(s): Consent of instructor and must be completed with a C or better.

May be repeated for credit. For elective credit only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2905 - Engineering Tools

3 hours This modular course introduces assorted tools beneficial to the analysis of electrical engineering problems.

Prerequisite(s): CSCE 1030 and CSCE 1015.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2920 - Analog and Digital Circuit Design Project

3 hours (2;2) Students learn to use basic electrical engineering lab equipment, to build and test simple circuits in the lab and to design and analyze circuits using CAD software tools. Includes simulation and design experiments and a final comprehensive design project to complement the circuit analysis course.

Prerequisite(s): EENG 1910, EENG 2610 (and EENG 2611 for electrical engineering students), and EENG 2710 (and EENG 2711 for electrical engineering students), each of which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3410 - Engineering Electromagnetics

3 hours Electromagnetic theory as applied to electrical engineering: vector calculus; electrostatics and magnetostatics; Maxwell's equations, including Poynting's theorem and boundary conditions; uniform plane-wave propagation; transmission lines – TEM modes, including treatment of general, lossless line and pulse propagation; introduction to guided waves; introduction to radiation and scattering concepts.

Prerequisite(s): EENG 2610 (and EENG 2611 for electrical engineering students) and MATH 2730 which must be completed with a C or better.

Corequisite(s): EENG 3411 for electrical engineering students which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3411 - Engineering Electromagnetics Lab

1 hour This course is designed to supplement the material of EENG 3410 and provide practical, hands-on experience with measuring instruments related to fundamental electromagnetics and onto transmission lines. Lab experiments will cover acoustic waves beginning with the speed of sound in air, traveling waves and determination of the wavelength of light and the permittivity of free space. Other areas covered include the role of wavelength on transmission lines and the concept of VSWR. The use of Smith chart in impedance measurements and matching techniques is also covered.

Corequisite(s): EENG 3410 which must be completed with a C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3510 - Electronics I (Devices and Materials)

3 hours Introduction to contemporary electronic devices, terminal characteristics of active semiconductor devices, and models of the BJT and MOSFET in cutoff and saturation region are introduced. Incremental and DC models of junction diodes, bipolar transistors (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are studied to design single and multistage amplifiers.

Prerequisite(s): EENG 2610 (and EENG 2611 for electrical engineering students) which must be completed with a C or better.

Corequisite(s): EENG 3511 for electrical engineering students which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3511 - Electronics I Lab

1 hour Designed to supplement the material of EENG 3510 and provide practical, hands-on experience with electronic devices, circuits and PSpice. Experiments cover diodes, MOSFET, BJT and op-amps. Students will explore the design, construction and debugging of analog integrated circuits using these devices.

Corequisite(s): EENG 3510 (must be completed with a C or better).

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3520 - Electronics II

3 hours Concepts, analysis and design of electronic circuits and systems are introduced. Topics include principle of DC biasing, small signal analysis, frequency response, feedback amplifiers, active filters, non-linear op-amp applications and oscillators.

Prerequisite(s): EENG 3510 (and EENG 3511 for electrical engineering students) which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3710 - Computer Organization

3 hours Principles of computer system organization, instruction sets, computer arithmetic, data and control paths, memory hierarchies.

Prerequisite(s): CSCE 1030 and CSCE 1015, EENG 2710 (and EENG 2711 for electrical engineering students), all of which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3810 - Communications Systems

3 hours Introduction to the concepts of transmission of information via communication channels. Amplitude and angle modulation for the transmission of continuous-time signals. Analog-to-digital conversion and pulse code modulation. Transmission of digital data. Introduction to random signals and noise and their effects on communication. Optimum detection systems in the presence of noise.

Prerequisite(s): EENG 2620 (and EENG 2621 for electrical engineering students), EENG 3510 (and EENG 3511 for electrical engineering students), and MATH 3180, all of which must be completed with a C or better.

Corequisite(s): EENG 3811.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3811 - Communication Systems Lab

1 hour Provides laboratory materials for EENG 3810. Topics include amplitude modulation, frequency modulation, pulse coded modulation and communication system design with Simulink.

Corequisite(s): EENG 3810 which must be completed with a C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3910 - Embedded System Design Project

3 hours (2;2) To study the fundamentals of microcontroller-based embedded systems, and the software and hardware design techniques for peripheral interfacing and communication, input/output signal interfacing, real-time processing and control, and embedded system development. Focuses on hands-on software development with a high-level programming language such as C, and hardware design, implementation, and experiments with a microcontroller development platform.

Prerequisite(s): EENG 2905, EENG 2620 (and EENG 2621 for electrical engineering students), and EENG 2920, all of which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3920 - Modern Communication System Design Project

3 hours (2;2) Students are required to design electronic communication systems with electronic devices such as MOS transistors, capacitors and resistors. Topics include LC circuits and oscillators, AM modulation, SSB communications and FM modulation.

Prerequisite(s): EENG 2920 completed with a C or better.

Corequisite(s): EENG 3520 and EENG 3810/EENG 3811 (each course must be completed with a grade of C or better).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4010 - Topics in Electrical Engineering

3 hours Technical elective specifically designed by the instructor each term/semester to cover topics in the latest state-of-the-art technology advancements in electrical engineering.

Prerequisite(s): Consent of the instructor.

Must be completed with a C or better. May be repeated for credit as topics vary for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4110 - Photonics and Optical Engineering

3 hours The nature of light and its properties, basic geometrical and physical optics, optical system and design considerations.

Prerequisite(s): EENG 3410 and EENG 3411, both completed with a C or better.

Meets with EENG 5110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4210 - Machine Learning

3 hours Begins with a quick tour of machine learning concepts such as classification, regression analysis, clustering, supervised and unsupervised learning, and neural networks. Addresses how machine learning concepts can be applied to engineering applications. Focuses on signal processing and wireless communications applications in domains such as cognitive radios, 5G networks, and biomedical signal processing.

Recommended: EENG 3810 and EENG 3811 completed with C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4310 - Control Systems Design

3 hours Transform domain and state space representations of linear systems. System response, system stability, root locus method, frequency response-based design and state space system analysis and design.

Prerequisite(s): EENG 2620 (and EENG 2621 for electrical engineering students) which must be completed with a C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4320 - Systems Modeling and Simulation

3 hours Systematically introduces concepts and analytical tools required to abstract engineering problems from real-world applications, and to simulate and analyze such problems. Main topics include the modeling of dynamical systems using ordinary differential equations, state-space representations, input-output equations and transfer functions, the analysis of system response, and a brief introduction to control systems including PID controllers design.

Recommended: EENG 2620 and EENG 2621.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4330 - Environmental Systems

3 hours Foundations and practice of modeling and simulation of ecological and environmental systems; temporal and spatial analysis; dynamical systems; and applications of engineering to environmental problems.

Prerequisite(s): Senior standing.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4340 - Environmental Monitoring

3 hours Fundamental course on sensors, instruments and real-time systems to monitor environmental systems. Integration of sensors, instrumentation, informatics and modeling into a cyber-infrastructure to monitor and forecast environmental changes.

Prerequisite(s): Senior standing.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4350 - Renewable Electrical Power Systems

3 hours Fundamental course on electrical power systems including efficient and renewable electrical power systems with relationships to environmental systems. Integration of renewable and alternative energy generation to electric power systems.

Prerequisite(s): Senior standing. Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4410 - Microwave Engineering

3 hours Introductory course for microwave engineering. Gives a general description of the fundamental microwave circuits and components. Topics include basic electromagnetic wave propagations, RF/microwave transmission lines, Smith Chart, RF matching networks and fabrication of RF/microwave circuits.

Prerequisite(s): EENG 3410 (and EENG 3411 for electrical engineering students) which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4450 - Micro-Electro-Mechanical-Systems (MEMS)

3 hours (3;3) Designed to provide an introduction to conventional micro-electro-mechanical systems (MEMS). Begins with an overview of the semiconducting properties of silicon, the workhorse of the microelectronics industry. The impact of continued miniaturization on transistor performance is highlighted according

to Moore's Law. Moving from Silicon as an electronic material, its mechanical properties are discussed which has been pivotal in the creation of the field of MEMS. A review of microfabrication technology conventionally used to form MEMS structures and devices using batch-fabrication is provided, which includes topics such as: photolithography, etching, physical vapor deposition, chemical vapor deposition, surface micromachining and bulk micromachining. Soft materials and thick film processes are also discussed that have been key enablers for microfluidics and BioMEMS. The practical applications of MEMS for sensors and actuators are highlighted, where electrostatic, thermal, piezoelectric and magnetic transduction schemes are used for actuation and sensing, including for RF wireless systems and bio-related applications for Lab-on-Chip (LOC). Students gain a broad perspective in the area of miniaturized systems for sensors and actuators. The laboratory modules are intended to reinforce the concepts discussed in the lectures, with practical hands-on learning exercises. The lectures and accompanying lab modules will help cultivate interdisciplinary perspectives with hands-on exercises developed for the students.

Recommended: PHYS 1710, CHEM 1410/CHEM 1430 or CHEM 1430/CHEM 1435 or equivalent, each with a grade of C or better is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4460 - Advanced Micro-machining Processes and Application

3 hours Provides a comprehensive study of nano/microfabrication techniques and their applications across power generation, radiofrequency (RF) technology, and biomedical fields. Students gain a thorough understanding of the fundamental concepts and processes involved in nano/microfabrication, including advanced lithography, precision metallization, selective etching, and intricate molding techniques. Students explore the design and function of various nano/microdevices. Key topics include the fabrication and use of microfluidic channels for biological applications, the development of RF antennas for enhanced communication, and the intricacies of MEMS inductors for electronic devices.

Prerequisite(s): Senior standing.

Meets with EENG 5460.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4510 - Digital Communications

3 hours Introduces the basics for the analysis and design of digital communication systems. Topics include channel modeling, signal analysis, digital modulation schemes, optimum receivers for additive white Gaussian noise channels, and selected topics in advanced digital communications.

Recommended: EENG 3810 and EENG 3811.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4520 - Image and Video Communications

3 hours Explores topics ranging from the fundamentals of video coding, motion estimation, source and channel coding, and transform (wavelet and discrete cosine) coding to the state-of-the-art compression and multimedia standards such as MPEG-4, H.264, MPEG-7, and MPEG-21. Advanced research topics include video streaming, joint source-channel coding, distributed video coding, and video surveillance using sensor networks.

Prerequisite(s): EENG 3810 and EENG 3811, and MATH 3180 completed with C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4530 - Analog Integrated Circuit Design

3 hours Thoroughly investigates the fundamentals in design and analysis of analog and mixed-signal integrated circuits. Topics include analog MOS transistor models, current sources and sinks, circuit reference, amplifier, feedback amplifiers, differential amplifiers and operational amplifiers.

Prerequisite(s): EENG 3520.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4580 - Power Electronics

3 hours Presents the use of electronic devices to control and convert electric power. The basic principle of power conversion techniques and their applications are introduced. Students obtain the fundamental knowledge to simulate and model of different power electronics converters.

Recommended: EENG 3520.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4610 - Digital Signal Processing

3 hours Digital Signal Processing (DSP) continues to evolve and play a central role in modern electronics and electromechanics systems. Many systems today, such as HDTV, mp3 players, Internet audio and video, Voice over IP, digital communications, vehicular controls, machine intelligence, etc., use powerful DSP concepts as their foundations. DSP is a logical extension of Signals and Systems in which a comprehensive view of discrete-time systems is taken. The course content succinctly stated is an introduction to modern digital signal processing theory and techniques. This includes discrete time signals and systems, sampling theorem, Z-transform, frequency analysis of signals and systems, discrete Fourier transform, fast Fourier transform algorithms, digital filter design, and other topics (e.g. multi-rate signal processing, wavelets, linear prediction).

Recommended: EENG 2620 (and EENG 2621 for Electrical Engineering majors).

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4710 - VLSI Design

3 hours Introduction to VLSI design using CAD tools, CMOS logic, switch level modeling, circuit characterization, logic design in CMOS, systems design methods, test subsystem design, design examples, student design project.

Prerequisite(s): EENG 2710 (and EENG 2711 for electrical engineering students) and EENG 3510 (and EENG 3511 for electrical engineering students), all of which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4720 - Embedded Controller Organization

3 hours Fundamentals of embedded system organization including CPU architectures, memory systems, basic input/output and software development for embedded systems in assembly and C.

Recommended: EENG 2710, EENG 2711, and EENG 3910, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4740 - Digital Circuit Design Techniques

3 hours Study of modern digital circuit implementation technologies, with emphasis on Field-Programmable Gate Arrays (FPGAs). Traditional and computer-based digital synthesis techniques for combinational and sequential circuits are covered. Complex systems, such as reaction timers, processors and buses, are built from simpler circuits. A modern hardware description language, such as Verilog or VHDL, is used throughout the course.

Recommended: EENG 2710 and EENG 2711, each with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4760 - Reconfigurable Computing

3 hours Focuses on the fundamental architectural aspects of different reconfigurable devices including some of the commercially available FPGAs, and coarse-grained reconfigurable fabrics from academia and industry. Includes both a description of the architectures and discussion of pros and cons of these architectures for different applications and user needs, including the need for run-time reconfiguration. Also covers various low power reconfigurable devices.

Prerequisite(s): EENG 2710 (and EENG 2711 for electrical engineering students) which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4810 - Computer Networks

3 hours History and overview of computer networks, protocols and network layers, application layer, socket programming, transport layer protocols and TCP, network layer protocols and IP, network routing, data link and physical layers, introduction to network security.

Prerequisite(s): EENG 3810 (and EENG 3811 for electrical engineering students) which must be completed with a C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4820 - Wireless Communications

3 hours Discusses the fundamentals of wireless communications. Topics include the modeling of wireless channels, diversity techniques to combat fading, wireless channel capacity limits, and modern cellular wireless communication system implementations.

Recommended: EENG 4810.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4850 - Computer Vision and Image Analysis

3 hours Mathematical principles of computer vision and image analysis. Binary image processing with techniques of mathematical morphology, grey level image processing with various filters, color fundamentals and texture representation and recognition are discussed. Advanced topics such as content-based image retrieval, shape form X-techniques, 2D/3D object recognition and matching are also discussed.

Prerequisite(s): MATH 2700 and MATH 3180, each with a grade of C or better.

Must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4900 - Special Problems in Electrical Engineering

1–3 hours

Individualized instruction in theoretical or experimental problems in electrical engineering.

Consent of instructor and must be completed with a C or better.

May be repeated for credit. For elective credit only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4910 - Senior Design I

3 hours A comprehensive electrical engineering design course providing major design experience. Students form teams and work under the supervision of a faculty advisor. Scope of the course includes identifying, formulating and solving an electrical engineering design problem of practical value under realistic design and implementation constraints by conforming to the appropriate engineering standards. Development of an awareness of contemporary issues, global issues and professional ethics are included in the scope of the course. Each project team is required to submit a project proposal, and present a written report about the conceptual design of their project at the end of the semester.

Prerequisite(s): EENG 3810 and EENG 3811 , EENG 3910, EENG 3920, all of which must be completed with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4920 - Cooperative Education in Electrical Engineering

1–3 hours Supervised field work in a job directly related to the student's major field of study or career objective.

Prerequisite(s): Junior- or senior-level standing in electrical engineering.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

EENG 4990 - Senior Design II

3 hours A comprehensive electrical engineering design course providing major design experience. Builds upon the project proposal and conceptual design developed in EENG 4910. Encompasses detailed design, implementation and documentation of the project. Project deliverables include a comprehensive project final report, oral presentation and demonstration of the project.

Prerequisite(s): EENG 4910 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Electrical Engineering Technology

ELET 1720 - Introduction to Electronics

3 hours (2;3) Survey of topics fundamental to the electronics industry. Introduction to the hardware and software tools used in industry. Emphasis is on experiential learning through laboratory experiences. Open to anyone interested in learning the fundamentals of electricity, digital logic and semiconductors.

Prerequisite(s): MATH 1100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 2740 - Special Electronic Devices

4 hours (3;3) Electronic devices used in industrial applications. Topics include fundamentals of process control and instrumentation using electronic devices for: interfacing, sensing and control.

Prerequisite(s): ELET 1720 and concurrent enrollment in MATH 1710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 2900 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3220 - Introduction to Power Systems Analysis

3 hours Basic concepts of AC systems, single-phase and three-phase networks, electronic power generation, transformers, transmission lines, electric machinery and the use of power.

Prerequisite(s): ENGR 2405.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3700 - Advanced Circuit Analysis

4 hours (3;3) Application of Laplace transforms and switching functions to the solution of complex electronic circuits and networks in both transient and steady state. Block diagrams and transfer functions are included as well as the use of computer solutions.

Prerequisite(s): ENGR 2405.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3750 - Embedded C-Programming

4 hours (3;3) C programming and applications for modern microcontroller architectures. Topics covered include C data types, arrays and pointers, data structures and their uses. Introduction to basic techniques of memory management and programming with dynamic data structures. Interrupt handling, multi-module programming including applications containing a mixture of C and assembly language modules, and techniques for manipulating hardware registers and special function registers.

Prerequisite(s): ENGR 2750.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3760 - Design of DSP Systems

4 hours (3;3) Introduction to digital signal processing, emphasizing digital audio applications. A DSP primer covering important topics such as phasors, the wave equation, sampling and quantizing, feedforward and feedback filters, periodic sound, transform methods and filter design. The course will use intuitive and quantitative approaches to develop the mathematics critical to understanding DSP techniques.

Prerequisite(s): ELET 3700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3900 - Special Topics in Electrical Engineering Technology

1–4 hours Individualized or group instruction on special topics in electrical engineering technology with hands-on activities, experiments and data acquisition, software-based simulations and analysis of results appropriate for rising junior or junior-level students.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4300 - Embedded System Organization

3 hours Common architectures and instruction sets for embedded microcontrollers. Detailed study of the software/hardware components and interfaces in embedded systems. Applications of soft cores and custom programming interfaces to embedded system control with emphasis on Field-Programmable Gate Array (FPGA) implementation. Usage of a modern Hardware Description Language (HDL) such as Verilog or VHDL. This course practices ETEC OpenLab Format: at least 30% of the assignments are completed in the lab or at home using proper technology.

Prerequisite(s): ELET 4340.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4320 - Electronic Communications II

3 hours Digital communication techniques, microwave techniques and systems; measurements in the UHF spectrum, transmission lines, Smith charts, satellite communications. This course practices ETEC OpenLab Format: at least 30% of the assignments are completed in the lab or at home using proper technology.

Prerequisite(s): ELET 4710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4330 - Instrumentation System Design

3 hours Design and implementation of computerized instrumentation systems for industrial processes using multiple sensors, interface electronics, data acquisition card, and GPIB and serial instruments.

This course practices ETEC OpenLab Format: at least 30% of the assignments are completed in the lab or at home using proper technology.

Prerequisite(s): ELET 3760.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4340 - Digital Logic Design Techniques

3 hours Study of modern digital circuit implementation technologies, with emphasis on Field-Programmable Gate Arrays (FPGAs). Traditional and computer-based digital synthesis techniques for combination and sequential circuits are covered. Complex systems, such as reaction timers, processors and buses, are built from simpler circuits. A modern hardware description language, such as Verilog or VHDL, is used throughout the course. This course practices ETEC OpenLab Format: at least 30% of the assignments are completed in the lab or at home using proper technology.

Prerequisite(s): ENGR 2750.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4710 - Electronic Communications I

4 hours (3;3) Receiver and transmitter circuits and systems; antennas, modulation, detection, high frequency oscillators and tuned amplifiers.

Prerequisite(s): ELET 3700, ELET 3740X .

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4720 - Control Systems

3 hours Classical control theory; block diagrams, applications of Laplace transforms, stability criteria and feedback. Use of computer software to evaluate complex systems. This course practices ETEC OpenLab Format: at least 30% of the assignments are completed in the lab or at home using proper technology.

Prerequisite(s): ELET 3760.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4780 - Senior Design I

1 hour Project teams specify, plan and design a product or process. Written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): ELET 3760. Senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4790 - Senior Design II

3 hours (2;3) Implement, test and demonstrate a product or process. Oral and written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): ELET 4780.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4900 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4910 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4920 - Cooperative Education

1 hour A supervised industrial internship requiring a minimum of 150 hours of work per experience.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 3 semester credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ELET 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Elementary Education

EDEE 1010 - Introduction To Teaching

3 hours Explores the profession of education and the roles of teachers in classroom instruction.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 2000 - Exploring Diversity Through Social Action

3 hours (3;0;45) Exploration of issues related to race and ethnicity, gender, social class, learning differences and sexual orientation as they impact education in the U.S. Required for students seeking grades 4–8 teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3300 - Interdisciplinary Studies in Education

3 hours School curriculum and approaches are often constructed by a range of social and physical science disciplines. Students will learn about these disciplinary approaches, their disproportionate impacts and interdisciplinary approaches in schools. Focus is on similarities and differences between multidisciplinary, transdisciplinary and interdisciplinary ways of thinking and how those various ways of thinking are instantiated in curriculum and instruction. Issues of equity, diversity and inclusion centered in schools and society.

Recommended: Admission to teacher education program; EDRE 3350, EDEE 1010, or EDEC 1010.

Must be taken in Block A; requires field hours at an offsite location. Course serves as a centering course for Block A and requires attendance in seminars.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3320 - Foundations of Education: The School Curriculum

3 hours Principles and foundations of curriculum for grades EC–8 in public schools. Includes the study of professional ethics/responsibilities, educational philosophies, the history of American education, schools and society, school and community/parent relationships, legal/political control and financial support, school/classroom organizational patterns and curriculum development/alignment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3330 - Teaching Science EC-6

3 hours (3;0;16) Introduces students to the scope and sequence of science education in an elementary school setting, lesson plans and lesson design inside both formal and informal learning settings

Prerequisite(s): Admission to teacher education program.

Corequisite(s): EDRE 3350 and EDEE 3340.

Must be taken in Block A.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3340 - Teaching Social Studies EC–6

3 hours (3;0;16) Principles of teaching social studies in primary and elementary school. Students observe social studies instruction and materials in real settings, apply principles of social studies instruction in classroom settings and experience first-hand the scope and sequence of the curriculum in a school setting. Course contains a field experience requirement.

Prerequisite(s): Admission to teacher education program.

Corequisite(s): EDEE 3330 and EDRE 3350.

Must be taken in Block A.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3350 - Teaching Mathematics EC-6

3 hours (3;0;16) Designed to prepare preservice teachers to teach mathematics in EC-6 grade classrooms. Become familiar with the national and state standards in mathematics that outline the mathematics that students should learn across grade levels and the mathematical processes they should be engaged in while learning them

Must be admitted to teacher education program: Must be taken in Block B; Requires field hours at an offsite location.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 3380 - Teaching and Learning in Grades EC–6

3 hours Effective teaching practices through reflective decision making in grades EC–6. Includes the fundamental teaching skills of planning for instruction, implementing appropriate teaching strategies, integrating the curriculum, integrating technology into teaching, grouping children for instruction, acquiring appropriate materials/resources, assessing student learning, and establishing and maintaining a safe and effective learning environment.

Prerequisite(s): Admission to the teacher education program (includes participation in a field-based program), with a child/adolescent/lifespan development course, and an educational-application computer course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4101 - Clinical Teaching

3 hours Clinical teaching represents a culmination of each student's academic experience in the EC-6 teacher education program. Students must demonstrate a variety of skills related to teaching, reflective practice and demonstrate improvement, drawing on feedback from university supervisors, cooperating teachers and children/youth in their classrooms. Throughout the clinical teaching experience students will be positioned as a co-teachers in the classroom, working collaboratively with their cooperative teacher to co-plan and co-teach, and to create and sustain a classroom community that supports diverse learners using humanizing pedagogies. This course will allow students to apply the theoretical, philosophical and pedagogical studies introduced in their education program in an elementary, and ultimately develop and enact reflective and transformative teaching practices.

Prerequisite(s): Admission to clinical teaching.

Requires field hours at an offsite location.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4102 - Clinical Teaching

3 hours Clinical teaching represents a culmination of each student's academic experience in the EC-6 teacher education program. Students must demonstrate a variety of skills related to teaching, reflective practice and demonstrate improvement, drawing on feedback from university supervisors, cooperating teachers and children/youth in their classrooms. Throughout the clinical teaching experience students will be positioned as a co-teachers in the classroom, working collaboratively with their cooperative teacher to co-plan and co-teach, and to create and sustain a classroom community that supports diverse learners using humanizing pedagogies. This course will allow students to apply the theoretical, philosophical and pedagogical studies introduced in their education program in an elementary, and ultimately develop and enact reflective and transformative teaching practices.

Prerequisite(s): Admission to clinical teaching.

Requires field hours at an offsite location.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4103 - Teacher Residency I

3 hours Clinical teaching represents a culmination of each student's academic experience in the EC-6 teacher education program. Teacher Residents must demonstrate a variety of skills related to teaching, reflective practice and demonstrate improvement, drawing on feedback from university supervisors, host teachers and children/youth in their classrooms. Throughout the teacher residency program students are positioned as co-teachers in the classroom, working collaboratively with their cooperative teacher to co-plan and co-teach, and to create and sustain a classroom community that supports learners. Allows students to apply the theoretical, philosophical and pedagogical studies introduced in their education program in an elementary classroom, and ultimately develop and enact reflective and transformative teaching practices.

Prerequisite(s): Admissions into the UNT Teacher Residency Program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4104 - Teacher Residency II

3 hours Clinical teaching represents a culmination of each student's academic experience in the EC-6 teacher education program. Teacher Residents must demonstrate a variety of skills related to teaching, reflective practice and demonstrate improvement, drawing on feedback from university supervisors, host teachers and children/youth in their classrooms. Throughout the teacher residency program students are positioned as co-teachers in the classroom, working collaboratively with their cooperative teacher to co-plan and co-teach, and to create and sustain a classroom community that supports learners. Allow students to apply the theoretical, philosophical and pedagogical studies introduced in their education program in an elementary classroom, and ultimately develop and enact reflective and transformative teaching practices.

Prerequisite(s): Admissions into the UNT Teacher Residency Program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4800 - Studies in Education

1–3 hours Organized classes for specific program needs and student interest.

Prerequisite(s): Admission to teacher education and consent of department. Limited-offering basis.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4810 - Studies in Education

1–3 hours Organized classes for specific program needs and student interest.

Prerequisite(s): Admission to teacher education and consent of department. Limited-offering basis.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4890 - Practice-Based Research

3 hours Provides preservice teachers with the opportunity to synthesize their student teaching experience through research into their own teaching. Through the seminars associated with this course, teacher interns strengthen their ability to be a reflective practitioner of content and curriculum knowledge, pedagogy and assessment knowledge, professional communication and engaged professional learning as outlined in the conceptual framework.

Recommended: Admission to clinical teaching. Concurrent enrollment in EDEE 4101 and EDEE 4102.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4891 - Clinical Teaching Seminar

3 hours Preservice Teachers simultaneously take this seminar with the EDEE 4101, 4102 and 4890 courses. Course goals and activities are aligned with the State Board for Educator Certification's Learner Centered Proficiencies, the standards for all new teachers in Texas. Discussion topics include the apprentice teaching experience, contemporary critical issues in education, and preparation for the state certification PPR exam. An Apprentice Teacher demonstrates meeting the state standards by preparing and submitting a Classroom Management Plan, weekly reflections, weekly skeletal lesson plans, and through six (6) progressive observations—three from the field supervisor and three from TNT master teachers. A fourth master teacher observation may be required based on individual circumstances.

Prerequisite(s): Major in Education, BS and consent of department.

Corequisite(s): EDEE 4101, EDEE 4102 and EDEE 4890.

If a failing grade is received in seminar, the course must be repeated with corresponding field placement hours. Likewise, if a failing grade is received in field placement, the field placement must be repeated with this course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDEE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Emergency Administration and Planning

EADP 1010 - Exploring Disasters

3 hours Provides an introduction to hazards and disasters and the impacts they have on society. Emphasis is given to the role of culture in shaping risks, vulnerability and resilience. Students will explore the breadth of the emergency management and disaster science fields as well as the causes and consequences of major historical and contemporary disasters.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 2020 - Images of Disasters in Film and Media

3 hours This course examines hazards and disasters as they are portrayed in film and various media. The emphasis is on understanding how the portrayals of disasters often depart from scientific understanding, and also on evaluating how the depiction of disasters in various media can shape both public and official awareness of the causes of, management of and recovery from disaster.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 2030 - Climate Change Resilience

3 hours Introduction to the study of how communities adapt to and protect against a changing climate. This course explores the impact of climate change on people, infrastructure and the environment. Emphasis will be placed on climate-induced hazards and disasters and how individuals and communities can increase their resilience to these threats.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 2700 - Current Issues in Emergency Management

1–3 hours Investigation of contemporary and/or emerging topics of concern to the fields of emergency management and disaster science. Possible topics include: catastrophic events, disaster management, disaster planning, emergency communications, fire service, first response, operational leadership, pre-post event planning and operations, public health, technology in emergency settings, and volunteer organizations.

May be repeated as topics vary for a maximum of 9 credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3010 - Principles of Emergency Management

3 hours Introduction to the theory, principles, phases and processes of emergency and disaster management. Topics include hazard, risk, vulnerability and comprehensive emergency management. Course also examines alternative career paths, the evolution of the field and its future outlook.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3020 - Methods in Emergency Management

3 hours Survey of practical management methods in which students should be familiar upon entering the field of emergency management. The methods covered include basic risk and vulnerability assessment methodology, project management, grants management, data collection and basic analysis and survey design.

Corequisite(s): It is recommended this course is taken concurrently with EADP 3010 or within the student's first year in the program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3035 - Hazard Mitigation and Preparedness

3 hours Theoretical examination and practical application of pre-disaster management activities including hazard and vulnerability analysis, structural and non-structural mitigation, capability assessment, planning, training, exercises and public education. Development planning, political advocacy and networking are heavily stressed.

Prerequisite(s): EADP 3010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3045 - Disaster Response and Recovery

3 hours Theoretical examination and practical application of post-disaster management activities including human behavior in emergency situations, warning, evacuation, sheltering, triage, damage assessment, disaster declaration, debris removal, media relations, crisis counseling, individual and public assistance, and other relevant functions. Decision making, incident command, EOC operations, coordination and service delivery strategies are also discussed.

Prerequisite(s): EADP 3010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3055 - EOC Design and Operations

3 hours Emphasizes the principles of the design and operation of Emergency Operations Centers (EOC). In addition to standard EOC functions established in the scholarly literature, course material covers the selection and arrangement of suitable space and equipment, the acquisition and deployment of appropriate communications and information-management technology, crisis decision-making; and the integration of multiple organizations into an emergency management system.

Prerequisite(s): EADP 3010, EADP 3035 and EADP 3045.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3080 - Leadership and Organizational Behavior

3 hours Study of interpersonal relationships and organizational behavior as they apply to the field of emergency and disaster management. Topics include leadership, management, conflict resolution, influence and motivation.

Prerequisite(s): EADP 3010 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 4000 - Hazardous Materials Planning and Management

3 hours Planning for and management of hazardous materials incidents. Attention is given to environmental regulations as they relate to hazardous materials. Defensive strategies for hazardous materials response are identified.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

EADP 4010 - Public Health and Disasters

3 hours Discussion of the changing and unique role of the public health field in emergency management, paying special attention to epidemiology, integration with emergency services, medical/first responders, public safety, bio-terrorism preparedness and public/professional community education.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4015 - Flood Plain Management

3 hours Identification and assessment of flood related hazards and vulnerabilities. Evaluation of the merit and necessity of implementing various structure and non-structural approaches to reduce flood related disasters. Includes discussion about mapping, containment devices, land use planning, early warning systems and insurance.

Prerequisite(s): EADP 3010 or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4020 - Managing Disasters at the National Level

3 hours An overview of the historical and evolving role of the federal government in managing events of national significance is provided. Emphasis will be placed on exposing students to the roles, responsibilities and interactions of local, state, federal governments and the private and non-profit sectors in managing risks and disasters. Topics will include the National Response Framework, the National Incident Management System, disaster declarations and other emerging issues.

Prerequisite(s): EADP 3010 or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4030 - Continuity Planning for Crises

3 hours Study of continuity and operational resilience following disasters. Topics include continuity of operations planning for businesses, governments and organizations during crises, impact analysis, private sector programs, crisis management and developing continuity plans.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4040 - International Disasters

3 hours Explores issues pertinent to international disasters, including susceptibility of poor countries to natural disasters, the nature of complex emergencies; and the actors involved in humanitarian activities across national borders. Special attention is given to the social, political and economic barriers that perpetuate the vicious cycle of vulnerability, as well as the need for long term solutions that promote beneficent forms of development.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4050 - Social Vulnerability in Disasters

3 hours Exploration of the social vulnerability perspective in emergency management. Discussion of how social characteristics such as gender, age, disability, class, and race/ethnicity shape disaster-related needs and outcomes. Methods for conducting community vulnerability analysis are also covered.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4060 - Emerging Technology and Disasters

3 hours Examination of the use of technology and information management in disasters. Topics include social media, unmanned aircraft systems (drones), communication, cybersecurity, geospatial technology, warning systems and technology adoption.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4065 - Disaster Exercise Design

3 hours Study in designing and implementing successful disaster exercise programs. Types of disaster exercises and their purpose are examined. Process of designing exercises is explored in depth. Methods of conducting and evaluating exercises are discussed and analyzed. Each student participates in producing, conducting and evaluating a disaster exercise.

Prerequisite(s): EADP 3010, EADP 3035 and EADP 3045.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4080 - Capstone Course in Emergency Management

3 hours Synthesis of emergency and disaster management concepts and perspectives. Case studies of disasters are emphasized to provide real-world examples of applied principles. Discussion of current theoretical approaches and future trends in the field. Topics include sustainable development, resistance, resilience and vulnerability.

Prerequisite(s): EADP 3010, EADP 3035 and EADP 3045. Enrollment is restricted to EADP majors who are in the final two semesters of their degree program.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4090 - Terrorism and Emergency Management

3 hours In-depth investigation into the ideological forces and groups involved in terrorist activity. Analysis of the effects of terrorism, including the similarities and differences to other types of disasters. Attention is given to weapons of mass destruction and the unique challenges to prevent, prepare for, respond to and recover from terrorist attacks.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4800 - Emergency Management Internship Preparation

3 hours Course prepares students for an internship. Recommended to be taken the term/semester before the student serves the internship. Periodic seminars cover career counseling, resume development, professionalism and interview skills.

Prerequisite(s): Enrollment is restricted to EADP majors who have completed EADP 3010 and have completed or are concurrently enrolled in EADP 3035, EADP 3045, and/or EADP 3055 with the consent of internship coordinator.

Enrollment in this course is required for pre-career EADP students.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4810 - Emergency Management Internship

3 hours Provides practical experiences geared toward the integration of theory and practice in a supervised emergency management setting. Requires a minimum of 240 contact hours within the practicum setting and attendance at scheduled classes.

Prerequisite(s): EADP 4800, 15 hours of EADP course work including EADP 3010, EADP 3035 and EADP 3045, and consent of the internship coordinator.

Enrollment in this course is required for pre-career EADP students. Application for approval of the practicum site occurs in the term/semester prior to enrollment in this course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4900 - Special Problems

1–6 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4910 - Special Problems

1–6 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

EADP 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Engaged and Applied Humanities

HUMA 3010 - Introduction to Digital Humanities

3 hours A hands-on introduction to digital tools and methods in the humanities. Use of digital technology to tell stories, analyze information, visualize complex ideas, and communicate findings. Emphasis is placed on developing both theoretical understandings and practical competencies.

HUMA 3020 - Introduction to the Medical and Health Humanities

3 hours

Explores the relationship between medical and humanistic knowledge by examining the history of medicine, concepts of disease and illness, narrative medicine, health disparities, religion, spirituality, and the role of science and technology on the practices of healthcare.

HUMA 4920 - Applied Humanities Internship

3 hours Students enrich their humanities education through experiential learning and practical application of their knowledge at self-selected sites and institutions.

Prerequisite(s): Students must meet employer’s requirements and have consent of department.

May be repeated for credit as topics vary for a maximum of 6 hours.

Engineering Fundamentals

ENGR 1030 - Technological Systems

3 hours Introduction to technological systems with focus on societal interrelationships; past, present and future trends; and influence and impact on technological literacy.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 1060 - Communication and Ethics

3 hours Technical/workplace written communication; critique of existing technical documents; preparation and delivery of a professional presentation; introduction to engineering ethics including plagiarism, professional codes of ethics and case studies.

Prerequisite(s): ENGL 1310.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 1201 - Introduction to Engineering

(ENGR 1201)

3 hours (2;2;0) Introduction to the engineering profession with emphasis on technical communication and team-based engineering design.

Recommended: Pre-engineering status.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 1304 - Engineering Graphics

(ENGR 1204 or ENGR 1304)

3 hours Fundamentals and principles of engineering drafting practices used in technical processes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2301 - Statics

(ENGR 2301 or ENGR 2401)

3 hours Basic theory of engineering mechanics, using calculus, involving the description of forces, moments and couples acting on stationary engineering structures. Equilibrium in 2 and 3 dimensions, free-body diagrams, friction, centroids, centers of gravity and moments of inertia.

Prerequisite(s): PHYS 1710 and PHYS 1730, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2302 - Dynamics

(ENGR 2302 or ENGR 2402)

3 hours Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies and systems of particles; Newton's Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems.

Prerequisite(s): ENGR 2301 and (MATH 1720 or MATH 1830) all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2332 - Mechanics of Materials

(ENGR 2332)

3 hours (3;0) Relationships among loads placed on structural components; shape and size of components; resultant stresses, strains and deflections of components.

Prerequisite(s): ENGR 2301.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2405 - Circuit Analysis

3 hours Introduction to electrical elements, sources and interconnects. Ohm's law, Kirchoff's law, superposition and Thevenin's theorems are introduced. The resistive circuit, OP Amp, RL, RC circuits, sinusoidal analysis.

Prerequisite(s): MATH 1720 with a grade of C or better.

Corequisite(s): PHYS 2220/PHYS 2240.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2415 - Circuit Analysis Lab

1 hour (0;3) Provides experiences in the analysis and design of DC and AC electrical networks. Fundamentals such as Kirchhoff's Laws, Thevenin and Norton equivalent circuits, RL, RC and RLC circuits are covered. Experiences include use of computer aided tools for data acquisition, analysis of data and report generation.

Should be taken concurrently with ENGR 2405.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2720 - Digital Logic

3 hours Digital system design; number systems and codes; Boolean algebra; logic gates; programmable logic devices and hardware description languages; arithmetic operations and circuits; combinational circuits; code converters, multiplexers and demultiplexers; sequential circuits; flip-flops, registers and shift registers; finite state machines; microprocessor fundamentals.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2730 - Digital Logic Lab

1 hour (0;3) Provides experiences in applying the principles and methodologies of digital electronics. Emphasis is placed on design, testing, debugging and implementation using Field Programmable Gate Arrays (FPGAs) and hardware description languages such as VHDL or Verilog. Project documentation and reporting are also included.

Should be taken concurrently with ENGR 2720.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 2750 - Introduction to Microprocessors

4 hours (3;3) The fundamentals of microprocessor hardware and assembly language interaction are studied in detail. Emphasis is on the use of the processor to control external systems and devices.

Prerequisite(s): ENGR 2720, CSCE 1030 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 3000 - Foundations of Manufacturing

3 hours Technological knowledge foundation to the principles and practices of manufacturing engineering with the intention of applying this knowledge to product development. Offers an understanding of traditional and emergent manufacturing technologies used in industry and will relate the design requirements of a product to the appropriate manufacturing processes. The global challenges to product performance, quality, environmental, ethics and economic considerations will be investigated.

Course specific fees (in addition to tuition and mandatory):

Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 3450 - Engineering Materials

4 hours Interrelationships of processing-microstructure-properties-performance in solid materials; diffusion laws and heat treatment of engineering alloys; the principles of materials microstructure characterization and mechanical testing; materials selection methodologies for mechanical systems design; fundamental knowledge for evaluation and analysis of materials failure and corrosion.

Prerequisite(s): ENGR 2332 and PHYS 1710. CHEM 1410/PHYS 1430 or CHEM 1415/CHEM 1435 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 3451 - Engineering Materials Lab

1 hour (0;3) Provides students with hands-on experience in materials science and engineering, involving experiments and data acquisition, analysis of results, report writing and oral presentation.

Corequisite(s): ENGR 3450.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

ENGR 4000 - Introduction to Industrial Systems and Analysis

3 hours Establishes the fundamentals of systems engineering processes and planning. Focus on needs identification, problem definition, generating requirements, system architecting, concept of operations, systems engineering management and the application of systems engineering in different disciplines. The course material is articulated through examples and case studies. Emphasis is placed on enhancing the effectiveness and efficiency of industrial systems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

English

ENGL 1310 - First-Year Writing I

(ENGL 1301)

3 hours Writing as discovery. Introduces essential concepts, knowledge, skills, methods, and conventions for writing. Focuses on practicing writing processes and developing rhetorical knowledge through analysis, observation, and self-reflection.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 1311 - Honors First-Year Writing I

3 hours Offers intensive practice in writing processes and rhetorical strategies through modes such as analysis, observation, and self-reflection. Introduces essential concepts, knowledge, skills, methods, and conventions for writing.

Prerequisite(s): Acceptance to Honors College.

May be substituted for ENGL 1310.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 1315 - Writing About Literature I

3 hours Writing as a means of critical thinking using readings from poetry and drama as sources for essay topics. Emphasis on the process of perfecting the essay through the writing of several drafts.

May be substituted for ENGL 1310.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 1320 - First-Year Writing II

(ENGL 1302)

3 hours Writing as inquiry. Develops habits of critical thinking, research-based inquiry, and argument through written engagement with relevant social and cultural issues.

Prerequisite(s): ENGL 1310 , ENGL 1311 or equivalent.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 1321 - Honors First-Year Writing II

3 hours Offers intensive practice in research-based writing and develops skills in critical thinking, inquiry, research, and argument.

Prerequisite(s): Acceptance to Honors College.

May be substituted for ENGL 1320.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 1325 - Writing About Literature II

3 hours Study of relationship between writing and research with research topics drawn from readings from prose fiction. Emphasis on the process of perfecting the essay through the writing of several drafts.

Prerequisite(s): ENGL 1315 or equivalent.

May be substituted for ENGL 1320.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 2100 - Introduction to Creative Writing

(ENGL 2307)

3 hours Workshop and discussion based. Examines how writers explore their experiences of the larger world using the technical and expressive possibilities available in poetry, fiction and creative nonfiction.

This course is designed as an elective for both non-ENGL majors and for ENGL majors who want to explore multiple genres before taking 3000-level genre-specific creative writing classes.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2321 - British Literature

(ENGL 2321)

3 hours Selected works of British literature from the Anglo-Saxon period to the present, including works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions.

Prerequisite(s): Completion of one course in the core foundation area of communication.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2326 - American Literature

(ENGL 2326)

3 hours Selected works of American literature from the wide range of cultures that comprise the nation and over the full range of literary history on the North American continent, including works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors.

Prerequisite(s): Completion of one course in the core foundation area of communication.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2331 - World Literature

(ENGL 2331)

3 hours Selected works of world literature from the ancient world to the present, including works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions.

Prerequisite(s): Completion of one course in the core foundation area of communication.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2341 - Forms of Literature

(ENGL 2341)

3 hours A study of one of more genres including, but not limited to, drama, poetry, creative nonfiction, novels, graphic novels, comics, or film, or the study of a topic or theme as represented in multiple literary forms.

Prerequisite(s): 3 hours of freshman-level English or equivalent.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2351 - Mexican American Literature

(ENGL 2351)

3 hours A survey of Mexican American/Chicanx literature from Mesoamerica to the present, including literary works of fiction, poetry, drama, essays, and memoirs in relation to their historical, linguistic, political, regional, gendered, and cultural contexts. Texts will be selected from a diverse group of authors, literary movements, and media forms. Topics and themes may include the literary performance of identity and culture, aesthetic mediation of racialization, struggle and protest, and artistic activism.

Prerequisite(s): Completion of one course in the core foundation area of communication.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3000 - Introduction to Literary Analysis

3 hours Prepares majors to understand literature and to articulate their understanding in essays supported by carefully analyzed evidence from assigned works. Covers basic critical vocabulary, the major literary genres (poetry, drama, fiction) and the conventions that govern these genres. Students learn to evaluate multiple interpretations of a text.

Prerequisite(s): 6 hours of first-year writing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3050 - Professional Rhetoric and Writing

3 hours Professional writing skills for success in applying to and navigating jobs and industry experiences after undergraduate matriculation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3110 - Writing and Rhetoric in the Humanities

3 hours Intermediate-level study in literacies, rhetorics and writing processes. Practice-centered approach to writing, focusing on drafting, revision, and research-based persuasion.

Prerequisite(s): ENGL 1320 or equivalent.

Fulfills the requirements for the English concentration in Language Arts, including readiness standards in writing required by the State of Texas.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3140 - Beginning Fiction Writing

3 hours Principles and practices in the writing of fiction.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3150 - Beginning Poetry Writing

3 hours Principles and practices in the writing of poetry.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3160 - Beginning Creative Nonfiction Writing

3 hours Principles and practices in the writing of non-fiction.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3200 - Rhetorical History and Historiography

3 hours Explores the construction of the rhetorical tradition through canonical texts and figures; questions alternatives to the received tradition.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3210 - Studies in Writing

3 hours Broad-based study of the intersecting social, material, political and institutional discourses that shape the theory, philosophy, history and practice of writing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3225 - Games, Play, and Stories

3 hours Theories of play and how play is expressed in games. Emphasis on game literacy and games as complex cultural and aesthetic objects. Inquiry into the social, political, and ethical issues that inform game stories, game design, game genres, game aesthetics, player decision-making, and role-playing and identity within games

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3360 - Classical Literature and Mythology

3 hours Selected works of literature from ancient Greece, Rome, Egypt, and global indigenous cultures. Arranged around a common theme, with emphasis on mythology.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3370 - The Bible as Literature

3 hours Considers the variety of literary genres and narrative strategies in the Bible and the historical contexts in which its various writers wrote. Books of major literary interest or influence selected both from the Torah, Prophets, and Writings of the Hebrew Bible and from the New Testament. Some biblical readings may also be paired with works of literature in English influenced by the Scriptures. No acquaintance with the Bible is assumed.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall Only

ENGL 3430 - British Literature to 1780

3 hours A broad survey of British literature from the Anglo-Saxon period to the late-18th century; includes the study of a variety of literary genres and traditions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3440 - British Anglophone Literature 1780 to the Present

3 hours A broad survey of British and Anglophone literature from the Romantic period to the present; includes the study of a variety of literary genres, movements and traditions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3450 - Short Story

3 hours Comparative survey of the short story from its inception in the 19th century to the present day, comprising representative works by African, Asian, British, Russian, North and South American, and European writers, in English or in translation.

Prerequisite(s): ENGL 1310, ENGL 1311, or equivalent.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3455 - Dramatic Literature

3 hours An introduction to dramatic form, history, and interpretation, with a diversity of representative readings from the classical to postmodern periods.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3465 - The Literary Essay

3 hours Literary essay genre, essays focus on one or several of the following text-based subgenres: the personal essay, cultural criticism, immersion journalism, the travel essay, nature writing, food writing, the lyric essay, and the multi-modal essay.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3470 - Poetry

3 hours Analysis and appreciation of poems through a broad survey of poetic forms, styles, and movements.

Prerequisite(s): ENGL 1310, ENGL 1311, or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3500 - Beginning Game Writing Workshop: Storytelling Through Narrative Design

3 hours An introduction into major concepts in story development for game writing and an online workshop for student writing focused on game-specific characterization and narrative structures.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3830 - American Literature to 1870

3 hours A broad survey of early American literature from the colonial period through the Civil War; includes the study of a variety of literary genres, movements and traditions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3840 - American Literature 1870 to the Present

3 hours A broad survey of American literature from the late-19th century to the present; includes the study of a variety of literary genres, movements and traditions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3900 - Writing for Careers

3 hours Demonstrates how skills from the humanities can be leveraged into careers in the private sector and nonprofit organizations. Identify strengths and preferences to guide job activity and career choices. Emphasis on developing digital literacy and shaping work into a writing portfolio.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3910 - Special Studies in Literature

1–3 hours Selected major authors, significant literary periods, thematically related literary works or topics of interest.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3920 - Ethnic American Literatures

3 hours Study of the literatures of several ethnic communities, including, but not limited to, African-American, Chicano (Mexican-American), Latino, Native American and Jewish-American. Comparison of divergent worldviews and ideologies articulated in ethnic literatures.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3924 - Women's Literature

3 hours Studies in literature written by or about women.

Same as WGST 3720.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4100 - Advanced Fiction Writing

3 hours Advanced study and practice of fiction writing in a workshop setting.

Prerequisite(s): ENGL 3140.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4110 - Advanced Poetry Writing

3 hours Advanced study and practice of poetry writing in a workshop setting.

Prerequisite(s): ENGL 3150.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4120 - Advanced Creative Nonfiction Writing

3 hours Advanced study and practice of non-fiction writing in a workshop setting.

Prerequisite(s): ENGL 3160.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4130 - Editing and Publishing

3 hours Procedures of editing and publishing in the content creator's marketplace. Identification of nationally recognized venues for nonfiction/expository writing; analysis of a publication's mission statement, its aesthetic vision, and/or its editorial practices.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4140 - Advanced Narrative Design for Gaming

3 hours Advanced techniques of interactive narrative and world-building in gaming through choice-based experience, branching strategies, and non-linear storytelling.

Prerequisite(s): ENGL 3500.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4145 - Worldbuilding and Mythopoesis

3 hours Study of worldbuilding characteristics and techniques including myth-making, archetypes, and systems of fictional worlds and societies.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4150 - Literary Criticism

3 hours Principles based on representative readings from major critics; essays and class exercises in forming independent critical judgment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4195 - Advanced Grammar and Usage

3 hours Covers basic and advanced concepts of grammar; usage and punctuation; and techniques and practices for effective writing and publishing in the humanities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4200 - Studies in Modern Rhetoric

3 hours Study of theories, practices and questions raised after the "rhetorical turn" of the 20th century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4205 - Multimodal Writing and Rhetoric

3 hours Explores rhetoric and writing practices through the lens of multimodality and its historical contexts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4210 - Advanced Studies in Writing

3 hours Intensive study of writing theory, philosophy, history and practice in dialogue with emerging research in humanities, the sciences and the arts.

Recommended: ENGL 3210.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4215 - Advocacy and Action: Rhetoric and Writing in Communities

3 hours Rhetorical and writing strategies that address urgent issues in communities and social groups. Explores how the community's past and present have used rhetorical and writing techniques to persuade, advocate and effect change.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4220 - Contemporary North American Indigenous Literature

3 hours Study of literature and other writings by Indigenous peoples of North America from 1900 to the present (including works in translation). Provides an introduction to these works in their historical, literary, and cultural contexts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4225 - Rhetorical Play: Writing and Rhetoric in Gaming

3 hours Explores video games, tabletop games, gamer culture, gaming practices, and the games industry as sites of rhetorical action and intervention.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4230 - Special Topics in Rhetoric and Writing Studies

3 hours Specialized, focused study of a particular topic, theme, figure, practice and/or theory within the field of rhetoric and writing studies.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4240 - Writing Center Theory and Practice

3 hours Writing-intensive seminar designed to provide theoretical background, research training, and practical strategies to prepare students for writing center work.

Prerequisite(s): Employment as a tutor in the UNT Writing Center or instructor permission.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4245 - Postcolonial Literature and Theory

3 hours An introduction into the major concepts in postcolonial theory and a study of postcolonial writers from a number of regions, including Africa, South Asia, the Caribbean, or Latin America.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4250 - Latinx Literature

3 hours Study of historical as well as contemporary Latinx literature, including a preponderance of Mexican American and Chicanx literature and cultural production. Works may range from the local to the national and global, and may include Indigenous American, Spanish colonial and writings from a range of Latin American nations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4255 - Mexican American Non-Fiction and Criticism

3 hours A review of key non-fiction essays and criticism by influential Mexican American writers and scholars. The readings span the twentieth century and extend into the twenty-first, exploring matters of folkloric identity, history, race, gender and globalization.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4260 - African American Literature

3 hours Study of the cultural and historical specificity of African American literature. Works may range widely in their chronological and geographic origin, ideological perspective, and relation to mainstream European and/or U.S. literary traditions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4270 - Modern Jewish Literature

3 hours Study of modern Jewish literature and its historical contexts. Works may take national perspectives such as American or Israeli or transnational, global perspectives. May investigate topics such as diaspora and homelands, secularism and tradition, or gender and sexuality.

May be used to fulfill a requirement for the Jewish studies minor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall Only

ENGL 4280 - Africana Literature, Media and Culture

3 hours Explores issues, themes, and concepts in literature, music, art, film, and cultural expressions from multiple sites in the African diaspora, including the United States, Caribbean, Canada, Europe, Africa, and Latin America.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4285 - Africana Theory and Criticism

3 hours Explores one or more schools of Black radical and critical thought through an in-depth study of Africana theory and criticism, including (but not limited to) African American literary theory, Pan-Africanism/Afrocentricity, Black Atlanticism, Black Womanism/feminism, Black queer theory, Black critical disability theory, and Black Marxism, among others.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4290 - Studies in Drama

3 hours Various dramatic modes and historical periods of World Drama, Modern Drama, Contemporary Drama, British Drama, and/or American Drama.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4400 - American Fiction

3 hours Reading and analysis of American novels and short stories by important authors such as Herman Melville, Henry James, Willa Cather, William Faulkner, Toni Morrison and Leslie Marmon Silko, among other possibilities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4405 - Medieval Women Writers

3 hours Study of major women writers and their works in the Middle Ages.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4410 - Chaucer

3 hours The Canterbury Tales and other works as a picture of medieval life and illustration of various literary types; the language of Chaucer and its development into modern English.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4420 - Studies in Poetry

3 hours In-depth study of the poetry of a historical period, a poetic form, or a poetic tradition.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4430 - Shakespeare

3 hours Representative comedies, histories and tragedies; survey of Shakespeare's life; his relation to his predecessors and contemporaries.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4431 - Studies in Medieval Literature

3 hours In-depth study of Medieval literature, from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4432 - Studies in Renaissance Literature

3 hours In-depth study of Renaissance literature, from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4433 - Studies in Restoration and 18th Century British Literature

3 hours In-depth study of literature from the Restoration period to the early 19th century, from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4434 - Studies in Romantic Literature

3 hours In-depth study of literature from the English Romantic period (early-to mid-19th-century British writers), from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4435 - Studies in Victorian Literature

3 hours In-depth study of English-language texts written by Victorian writers (mid-to late-19th-century British writers) from a particular critical, historical, cultural, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4440 - Milton

3 hours Prose and poetry of Milton; political and religious thought of his day; his relation to his predecessors and his contemporaries and his legacy to later writers.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4450 - Special Studies in a Single or Dual Author(s)

3 hours In-depth study of the works of a major author or of two related authors.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4460 - Whitman and Dickinson

3 hours Poetry of Whitman and Dickinson; survey of their lives; relation of their works to each other, their predecessors, and their contemporaries.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4490 - American Realism

3 hours Study of realism in American literature and culture from 1860–1900, along with related literary movements (e.g., naturalism, regionalism). Provides coverage of such major authors as Mark Twain, Sarah Orne Jewett, Charles Chesnutt, and Henry James.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4500 - British Fiction

3 hours Reading and analysis of British novels and short stories by Defoe, Austen, Fielding, Dickens, Lawrence, Burgess, Hardy and others.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4610 - Children's and Young Adult Literature

3 hours In-depth study of children's and young adult literature and its roots in nineteenth century folklore and fairy tales. Course texts will be examined from a particular critical, cultural, historical or philosophical perspective. Readings may include the works of such authors as J. K. Rowling, Suzanne Collins, Rick Riordan, Philip Reeve, Mark Haddon, and others.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4620 - Studies in Literature and Film

3 hours Interdisciplinary exploration of the relationships between literature and film (or other closely related media). Possible areas of focus include adaptation/remediation studies, genre studies and narrative studies.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4630 - Studies in Literature and Medicine

3 hours Interdisciplinary exploration of the relationships between literature and medicine in any historical period.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4650 - Literature and the Environment

3 hours Explores a variety of philosophical, aesthetic and cultural traditions of representing the natural world and its relation to human societies. In addition to literature, readings may extend into natural science, environmental philosophy, cultural criticism, and artistic theory.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4660 - Literature and the Holocaust

3 hours Study of literary responses to the Holocaust. "Canonical" Holocaust authors such as Primo Levi, Eli Wiesel and Anne Frank are read alongside criticism, theory, graphic novels, film and the works of lesser-known authors. Topics of discussion include the relationship between Holocaust literature and film, language and trauma, literature and genocide, storytelling and history, art and ethics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

ENGL 4665 - Studies in Science Fiction

3 hours In-depth study of science fiction, from a particular critical, cultural, historical, or philosophical perspective.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4670 - Gender and Sexuality in Literature

3 hours Interdisciplinary exploration of how literary works represent the complex ways in which human beings experience gender and sexuality. Topics of study may include social or psychological conflicts involving gender and sexuality; changing definitions of masculinity and femininity; and the impact of economic, political, medical, and historical forces on the development of gender identity and sexual norms.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4680 - Game Narratives as Literature

3 hours A survey covering the implementation of and experimentation with narrative in video games, from the late 1960s to the present, with emphasis on psychological realism, the ethics implied in world-building, and game narrative as a form of literary experience.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4700 - Instruction and Assessment in English Language Arts

3 hours Study of English Language Arts curriculum, instruction, and assessment designed for students in the Language Arts teacher preparation program.

Prerequisite(s): Admission to College of Education Secondary Teacher Certification program.

Must be taken during the last term of course work before student teaching.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4800 - Special Seminar in Literature or Language

3 hours Study of a major author, topic or genre in literature or language that extends the scope of traditional offerings. May be repeated for credit as topics vary. May be used to fulfill a requirement for the Jewish studies minor when taught as "The Bible as Literature."

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4805 - Topics in British Literature

3 hours Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age. May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4810 - Topics in American Literature

3 hours Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age. May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

ENGL 4815 - Topics in World Literature

3 hours Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age. May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4825 - The Literature of Texas and the Southwest

3 hours Study of the poetry, prose and drama of Texas and the Southwest and their relation to the cultural history of the region.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4830 - Studies in the Literature of the Colonial Americas

3 hours A study of the American literature associated with the colonization and settlement of the New World; readings cover selections from colonization to the early national period.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas

3 hours In-depth study of 18th-century literature from the British, French, and/or Spanish Americas, from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4832 - Studies in 19th-Century American Literature

3 hours In-depth study of 19th-century American literature, including fiction, poetry, and drama, from a particular critical, cultural, historical or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4841 - Studies in Modern Irish Literature

3 hours An in-depth study of English-language texts written by modern Irish writers such as Samuel Beckett, Augusta Gregor, James Joyce, Bernard Shaw, W.B. Yeats, Oscar Wilde, and others.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4842 - Studies in British Modernism

3 hours An in-depth study of British literary modernism as practiced by such writers as T.S. Eliot, James Joyce, Marianne Moore, Wallace Stevens, W.B. Yeats, Virginia Woolf and others. May also involve the study of such non-literary materials as painting, music, film and architecture.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4844 - Studies in American Modernism

3 hours An in-depth study of American literary modernism as practiced by such writers as Gertrude Stein, Ernest Hemingway, Zora Neale Hurston, William Carlos Williams, Eugene O'Neill and others. May also include the study of such non-literary materials as painting, music, film and architecture.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4845 - Studies in Contemporary American Literature

3 hours In-depth study of contemporary American Literature (1945–Present), including fiction, poetry, and drama, from a particular critical, cultural, historical, or philosophical perspective.

May be repeated as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4850 - Literature in Context

3 hours Study of a topic, period or genre in relation to social, historical, intellectual and/or religious context(s). Takes an interdisciplinary approach to literature.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4920 - Internship in English

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): 12 semester hours credit in English. Student must meet employer's requirements and have consent of the department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ENGL 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Ethnomusicology

MUET 2000 - Global Pop: Music, Media, and Society

3 hours Considers popular music (broadly defined) from genres throughout the world, with attention to identity formation, media environment, and sociopolitical discourse. Students are not required to have any formal background in music to participate fully in this course.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3030 - Music Cultures of the World

3 hours (3;1) Survey of music cultures of Africa, the Americas, Asia and Oceania. Music traditions are studied from a perspective that emphasizes music as an integral part of society and culture.

Open to students in any major.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3050 - Music of Africa

3 hours Study of musical experience in African life. How music functions in everyday life, in ritual and ceremony. When music happens and for what reasons. The social and political horizons of musical events. How musical experience changes in contemporary life. These topics are explored in relation to African music, ranging from the complex vocal polyphony of the Mbuti Pygmies of the Itui Forest to the worldwide explosion of Afro Pop.

Taught with MUET 5050.

Open to majors of all fields. No formal musical training is needed.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3060 - African-American Music

3 hours Exploration of the experiences of Black people in the Americas vis-à-vis music. In particular, critical examination of the long trajectory of "Black music" in the United States, making reference first to its West African antecedents. Consideration of ways that the term "Black music" is deployed politically and its appropriateness as a descriptive and analytical category. Exploring the permeability of the sacred and secular in African-American cultural experiences, interrogating the musical, philosophical and behavioral links between a Saturday night crowd and a Sunday morning people.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3070 - Studies in Asian Music

3 hours Historical development and current issues in Asian music. Select music cultures are studied from an ethnomusicological perspective.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3080 - Studies in Latin-American Music

3 hours Study of the traditional and popular music of Latin America in its cultural context using theoretical approaches of ethnomusicology and related disciplines. Countries and topics may vary.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3090 - Music of India and Pakistan

3 hours 3 This course introduces many genres and styles of music (including classical, folk, popular, and religious) from South Asia, with emphasis on music from India and Pakistan. Students will learn about its history, performance practice, cultural significance, and social politics in addition to learning songs/compositions in many styles. No musical experience is required; students from all majors are welcome.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 3617 - African Music and Movement

1 hour (2.5;0) Study of selected African drum music and development of related traditional movement skills through studio experience. Movements will be compared and contrasted with various African dance styles, while exploring their cultural basis, recreational and social uses, and artistic and educational values.

Same as DANC 3617X .

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 4500 - Introduction to Ethnomusicology

3 hours General overview of the discipline of ethnomusicology, including major contributions to the field, history, methodology and practical applications. Case studies are used to illustrate specific theoretical problems encountered in ethnomusicological research.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUET 4900 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Event Design and Experience Management

EDEM 1600 - Introduction to Global Event Management

3 hours Introductory course which examines different types of events and the global economic impact of these events. Overview of the event management industries. Techniques and procedures required for producing successful and sustainable events.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 2510 - Exhibition and Convention Management

3 hours Introduces the exhibitions and conventions industry. Contents include the exhibitions and conventions industry overview, marketing plans, sponsorship, financial management, stakeholder assessment, event venues, event technologies, food and beverage services, event operation, risk management, and event sustainability.

Prerequisite(s): EDEM 1600.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 2700 - Event Sales Strategies

3 hours Explores sales techniques tailored to the event management industry. Students learn to develop sales plans, target clients, and close deals across various event types. Key topics include client needs, negotiation, and marketing integration.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

EDEM 3210 - Intellectual Property and Sports Entertainment

3 hours An introduction to the product development process in the sports environment with an emphasis on how consumer products are developed and complement the overall business strategy of the sports organization. An analysis of the steps and personnel involved in the creation of licensed merchandise from concept art through production and delivery to the final consumer.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

EDEM 3240 - Event Service Essentials

3 hours Analysis of the factors to be considered in the successful management of corporate and association meetings, conferences, conventions and special events. Topics include special event planning, budgeting, marketing, arrangements, international considerations and ethics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

EDEM 3500 - Event Catering Operations

3 hours Study of event catering, including operations, menu development, responsible alcohol service, sales, and relationships with other departments and outside vendors. Emphasis placed on logistical operations, seeking and servicing various market segments. A practical approach to understanding the role of catering operation in event management.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 3510 - Entertainment and Experiences in Hospitality and Events

3 hours This course provides an overview of the function, design and structure of entertainment and related experiences for the event and hospitality industries. Topics include structure of the live entertainment industry, the promotion of entertainment-based events, and overall analysis of the impact events have on a property and how entertainment projects fit within the event and hospitality industries. Students acquire transferable knowledge and skills for planning entertainment and design experiences for events and hospitality businesses.

Prerequisite(s): EDEM 1600.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 3600 - Cruise Events Management

3 hours Introduces the major aspects of cruise events management. Topics include introduction to cruise ship management, the planning process for cruise events, technologies related to cruise events, marketing management, sustainable practices, and safety and risk management.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

EDEM 3700 - Modern Wedding Planning

3 hours Comprehensive introductory course to the design and execution of the modern wedding. Emphasis on culture, inclusion and the role of the wedding within the hospitality industry.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 4200 - Sustainability in the Event Industry

3 hours Introduces the concepts and terms related to sustainable events. Contents include economic, environmental, and social impacts of events, event sustainability management, sustainability communication, procurement and waste and venue management.

Prerequisite(s): EDEM 1600.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

EDEM 4400 - Event Design Lab

3 hours (1;2) Introduces students to the foundational concepts and methodologies of event design, with a focus on hands-on learning and practical application. Covers essential topics such as understanding an event's value proposition, influencing participant pre- and post-event behaviors, and ensuring a holistic hospitality experience. Students learn how events can help stakeholders achieve their objectives, address event challenges, and implement effective contingency planning solutions. The curriculum incorporates the latest case studies and real-world examples from the Event Design Collective (EDC) Young Professional (YP) program. Upon completion, students earn the Certificate in Event Design Young Professional designation and 8 Continuing Education clock hours in domain G: Meeting & Event Design, as defined by the Events Industry Council (EIC).

Prerequisite(s): EDEM 3240.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

EDEM 4500 - Strategic Event Design

3 hours (1;2) Capstone course for the event design and experience management degree program. This course serves as a senior-level simulated learning project designed to provide students with an opportunity to integrate knowledge, concepts and capacities from different parts of their learning experiences.

Prerequisite(s): EDEM 4400; Senior standing or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

Finance

FINA 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 3600 - Exploring Careers and Innovations in Banking

3 hours Designed to introduce students to the dynamic world of banking. Provides a broad overview of the industry, highlighting its core functions, evolving trends, and emerging technologies such as fintech and digital banking. Examines the development of banking products and services, the impact of regulatory changes, and the critical role banks play in the global financial system. Special emphasis is placed on a review and discussion of the multiple career pathways present within the industry. Through case studies and frequent classroom visits by industry executives, students learn how innovation is reshaping banking practices while creating new opportunities for young professionals.

Prerequisite(s): FINA 3770 (can be taken concurrently).

Elective option for finance, BBA degree and other business majors/minors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 3770 - Finance

3 hours Overview of money and the banking system; interest and present value calculations; financial information; analysis and financial decision making; security markets.

Prerequisite(s): Completion of pre-business requirements, including ACCT 2010 and ACCT 2020 or equivalent with grades of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4100 - Using Numbers: Converting Financial Data Into Smart Banking Decisions

3 hours Designed to equip students with the analytical skills necessary for evaluating the financial health and repayment capacity of business borrowers. Covers key aspects of commercial lending, including operating cycles, financial reporting, and legal structures of businesses. Students construct and analyze balance sheets and income statements, interpret cash flow statements using the Uniform Credit Analysis (UCA) model, and assess financial ratios critical to credit decisions. Course also includes personal financial statement analysis and the integration of business and personal cash flows into a global cash flow model. With a practical, hands-on approach, students develop proficiency in Excel and financial calculators, preparing them for careers in commercial banking, credit analysis, and corporate finance. Coursework includes three exams and problem sets designed to reinforce core concepts and real-world applications.

Prerequisite(s): FINA 3770.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4150 - Lending Smarts: How to Finance Business Growth with Confidence

3 hours Provides future bankers and financial professionals with the essential knowledge and skills to assess, manage, and make decisions regarding commercial loans. Students learn the commercial lending process, including credit investigation, risk assessment, loan structuring, and documentation. Emphasis is placed on balancing risk and reward to support both the bank's objectives and the client's success. The course covers key topics such as credit risk ratings, loan packages, repayment sources, loan pricing, negotiation, and problem loan management. Through case studies, problem sets, and practical applications, students develop the analytical and decision-making skills necessary for successful careers in commercial lending and finance. Students acquire skills to evaluate loan applications, structure appropriate lending solutions, and ensure compliance with industry best practices and regulatory requirements.

Prerequisite(s): FINA 3770.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4200 - Investments

3 hours First course for the individual investor. Idea of investment value; necessary prerequisites for an investment program; policies; economic and industry factors; introduction to security analysis and valuation; operation of security markets; security laws.

Prerequisite(s): FINA 3770 with grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4210 - Introduction to Derivatives

3 hours Introduction to the theory, valuation and analysis of derivatives. Fundamental concepts of options, forwards, futures, swaps and other derivative products.

Prerequisite(s): FINA 4200 with a grade of C or better or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4300 - Financial Statement Analysis and Liquidity Management

3 hours Analysis and interpretation of financial statements. Analyzing issues related to corporate liquidity. Problems and solutions related to the management of short-term assets and liabilities. Effective financial statement evaluation from the perspective of managers, investors and creditors. Pro forma statement development for effective financial management.

Prerequisite(s): FINA 3770 with a grade of C or better. Finance BBA students must complete ACCT 3110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4310 - Valuation and Financial Decisions

3 hours Applies the concepts of risk, return and diversification to standard capital budgeting problems. Students are introduced to basic option valuation and to the use of options and futures contracts for hedging purposes. There is a discussion of the implications of market efficiency and agency problems on corporate decisions. Finally, corporate capital structure decisions are examined.

Prerequisite(s): FINA 3770 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4330 - Sustainable Finance

3 hours (1) Conceptual and theoretical foundations for corporate Environmental, Social and Governance (ESG) policies and actions and investors' preferences regarding such policies and actions; and (2) How such policies and actions affect firm performance, investor reactions, and portfolio risk and return. ESG issues have assumed an increasingly important role for corporations, investors and society as a whole. The hope is that after taking this course you will be able to incorporate what you learn in both your professional career and personal life.

Prerequisite(s): FINA 4310 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4400 - Financial Markets and Institutions

3 hours Studies in the operations, mechanics and structure of the U.S. financial system. Topics include commercial banking, non-bank financial institutions, money and capital markets, the impact of monetary policy on financial institutions and markets, and an introduction to the international financial system.

Prerequisite(s): FINA 3770 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4500 - International Finance

3 hours International and regional financial institutions and arrangements; balance of payments, theory, adjustments and impact on world trade; role of commercial and central banks in financing international flow; financing exports and imports; the instruments and markets of foreign exchange; determination of exchange rates.

Prerequisite(s): FINA 3770 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4650 - Special Topics in Finance

3 hours Special topics as selected by instructor. May include cases and/or lecture format.

Prerequisite(s): Consent of department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4700 - Survey of Commercial Equipment Finance

3 hours To provide a conceptual framework for understanding the commercial equipment leasing and finance industry through a survey of foundational concepts, origination topics, and operations and servicing areas. Industry dynamics, financial/tax accounting, leasing law, pricing, credit, sales and marketing, documentation, operations, collections, and portfolio management are covered. Qualifying students may be eligible to be awarded the Certified Lease & Finance Professional (CLFP) Student Certification.

To qualify for the Certified Lease & Finance Professional (CLFP) Student Certification awarded by the CLFP Foundation, a student must achieve an average score of at least 75 on the course exams. If they score 60 or higher, they will receive academic credit but will not be awarded the certificate. However, the CLFP Foundation will allow the student to retake the applicable failed section in accordance with their then-existing policy after the semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4800 - Internship

3 hours Supervised work in a job related to student's career objective.

Prerequisite(s): Student must meet the employer's requirements and have consent of the department chair.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FINA 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Financial Planning

FIPL 2770 - Show Me the Money - Lessons in Money Education

(BUSI 1307)

3 hours An introductory course in personal money management and financial literacy for all majors. Topics include building a budget, creating and reading personal financial statements, filing personal and small business taxes, personal risk management, health, life, property, and liability insurance, debt management and credit scoring, renting and home ownership, savings, investing, and other issues related to basic personal financial planning.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 3100 - Fundamentals of Financial Planning

3 hours Prepare students to begin the journey of financial literacy. Introduction to financial planning, insurance, budgeting, credit, home ownership, education savings, investments and tax problems. Designed to fulfill the 3-hour fundamentals education requirement for the Accredited Financial Counselor (AFC®) and the Certified Financial Planner (CFP®) certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4200 - Life and Health Insurance Planning

3 hours Life and health-related insurance planning, economic basis and fundamental principles of insurance. Topics include: types of life insurance, health insurance, long-term care insurance, disability insurance, annuity products, pertinent legal concepts and contract provisions of insurance policies; taxation of life, health, long-term care, disability insurance, and annuity products, personal and business uses of life and health insurance, and annuity products.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4210 - Securities Licensing

3 hours Provides student with the preparation training to sit for the FINRA Securities Industry Essentials (SIE) exam, the first of the FINRA licensing exams.

Prerequisite(s): FIPL 2770 or FINA 3770 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4400 - Retirement Planning and Employee Benefits

3 hours Students explore various retirement planning methods including accumulation and distribution planning. Students explore the reasons for employee benefit programs; group life, medical expense and disability income insurance programs; health maintenance organizations; pension programs and profit-sharing plans; tax considerations and government regulations.

Prerequisite(s): FIPL 2770 or FIPL 3100 or FINA 3770.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4500 - Estate Planning

3 hours Planning process and selected techniques for efficient disposition and administration of property interests; various tools, including wills, trusts, life insurance settlement options and powers of appointment; pertinent income, estate and gift tax provisions.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4605 - Client Communications and Behavioral Finance

3 hours Prepares students to assist clients through financial troubles and help them improve their financial health. Prepares students to communicate effectively with clients and prepares students to identify financial stressors, cognitive biases and problematic financial

behaviors that clients may face. Designed to fulfill the 3-hour client counseling education requirement for the Accredited Financial Counselor (AFC®) certification.

Prerequisite(s): FIPL 2770 or FIPL 3100 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4610 - Financial Planning Capstone

3 hours Designed to prepare students to assist individuals in their financial planning and strategy, including analysis of needs, insurance and investment programs, tax planning and shelters, trusts, tangibles, and retirement planning. Study includes readings and analysis of cases. Students prepare a comprehensive financial plan. Final course in the Financial Planning sequence and should be taken the final semester.

Prerequisite(s): FINA 4200, ACCT 4300, FIPL 4400, all with grade of C or better; RMIN 2500 or RMIN 3100, with grade of C or better; FIPL 2770 or FIPL 3100, with grade of C or better.

Corequisite(s): FIPL 4500.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

FIPL 4800 - Internship

3 hours Supervised work in a job related to student's career objective ideally with existing CFP® Professionals, so students earn experience hours towards their CFP® certification.

Prerequisite(s): Student must meet the employer's requirements and have consent of the financial planning program advisor or department chair.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

French

FREN 1010 - Elementary French

(FREN 1411)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 1020 - Elementary French

(FREN 1412)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): FREN 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 2040 - Intermediate French

(FREN 2311)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): FREN 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 2050 - Intermediate French

(FREN 2312)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): FREN 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 2900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3010 - French Phonetics and Pronunciation

3 hours Focus on French phonetic system and pronunciation practice.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3020 - Language Use in Context

3 hours Exploration of French language usage in diverse contexts, through the study of grammatical features and language variations, the analysis of electronic discourse, and the development of basic translation skills.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3110 - French Cinema, Humor and Culture

3 hours Explores specific aspects of French society and culture and the discourse of humor as depicted in recent French movies. Focuses on multiculturalism, racism, French daily life, and family relations as

seen through the prism of humor in French movies.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3120 - Advanced Readings in French

3 hours Selected readings from French literature and other types of texts such as advertisements and film, with emphasis on conversational and written practice.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3130 - Image of the Artist in France Through the Ages

3 hours Analysis of the development of the image of the artist in France from medieval to modern times.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3210 - The Francophone World

3 hours Exploration of the diverse histories, cultures, and societies of the French-speaking world.

Prerequisite(s): FREN 2050 or equivalent.

May be repeated as topics vary for a maximum of six hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3220 - Language and Culture in Canada

3 hours Study of linguistic and cultural products and practices in Canada with an emphasis on French influences throughout the country.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3230 - Language and Culture in North Africa

3 hours Study of linguistic and cultural products and practices in North Africa with an emphasis on French influences in the region.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3310 - France Today

3 hours Exploration of themes related to contemporary France with emphasis on communication skills.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3320 - The Role of Food in French Society

3 hours Exploration of the role of food in French society. Readings, discussions, films and audiovisual materials.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3330 - Living and Working in France

3 hours Developing practical skills for living, studying and/or working in France, emphasizing a task-based approach to foster effective communication in personal and professional contexts.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3340 - Paris Through the Centuries

3 hours Study of the socio-cultural history of Paris from Antiquity to the present. The French capital's iconic monuments are explored through a variety of cultural expressions such as documentary and literary texts, video clips, songs and movies.

Prerequisite(s): FREN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3500 - Topics in French Language

3 hours Exploration of topics related to language in French-speaking areas of the world.

Prerequisite(s): FREN 2050 or equivalent.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 4030 - Current Events in the Francophone World

3 hours Exploration of current events in the francophone world through a wide range of sources.

Prerequisite(s): 3 hours of advanced French or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 4040 - French Across Disciplines

3 hours Acquisition of advanced French competence through the exploration of other disciplines with a focus on specialized discourse and vocabulary.

Prerequisite(s): 3 hours of advanced French or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 4050 - French Tourism

3 hours Exploration of current trends and facets of tourism in France. Overview of French regions with their characteristics, landmarks for visits and excursions, transportation, types of accommodation available to tourists, and cuisine. Emphasis on task-based approach and digital literacy for the French tourism industry.

Prerequisite(s): 3 hours of advanced French or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 4060 - French Culture through French Literature

3 hours Exploration of French culture from the Middle Ages to the twentieth century through representative literary works.

Prerequisite(s): 3 hours of advanced French or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

FREN 4150 - Foreign Language Instruction and Assessment

3 hours Study of foreign language curriculum, instruction and assessment for future and current teachers of French.

Prerequisite(s): 6 hours of advanced French or consent of department.

Same as GERM 4150, JAPN 4150 and SPAN 4150.

Designed for students in a teacher preparation program. May not be counted toward a minor in French.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

FREN 4500 - Topics in French Culture

3 hours Exploration of topics related to culture in French-speaking areas of the world.

Prerequisite(s): 3 hours of advanced French or consent of department.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

FREN 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

FREN 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

FREN 4920 - Cooperative Education in French

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): 12 hours of credit in French; student must meet the employer's requirements and have consent of the department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

FREN 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

Furnishings and Décor Merchandising

FADM 2380 - Aesthetics and Environment

3 hours (2;2) Aspects of the furnishings and décor industry are introduced including its structure, products, and processes. With an emphasis on aesthetics, functionality, and production, students engage in hands-on learning to develop and critique design concepts and communicate ideas using tools such as CAD, AI, and 3D modeling.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

FADM 2655 - Textiles for Home Furnishings

3 hours Explores textiles as a fundamental element of interiors, furnishings and décor. Students examine fibers, yarns, fabrics, finishes and employ critical thinking for informed textile selection, specification, and application. Considerations include historical and contemporary influences, sustainable practices, and technological innovations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

FADM 3355 - Styles and Trends in Furnishings and Décor

3 hours Examines the evolution of architectural, interior, and furniture styles and their influence on current trends. Students analyze various influences, features, key designers, innovations and iconic structures.

Prerequisite(s): C or better in MDSE 2490 (may take concurrently).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

FADM 3380 - Global Home Furnishings Industry

3 hours Emphasis on international issues and factors affecting design, sourcing, production, wholesaling and retailing of home furnishings.

Prerequisite(s): FADM 2400 .

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10.40

FADM 3405 - Drawing and Planning for Furnishings and Décor

3 hours (2;2) Techniques in drawing and drafting related to furnishings and décor with emphasis on function, aesthetics, and economics.

Prerequisite(s): C or better in FADM 2380 and MDSE 2490 (may take concurrently); or consent of instructor

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

FADM 3410 - Technologies in Furnishings and Décor Merchandising

3 hours (2;2) Students engage in projects, applying both traditional and digital design tools, including CAD and AI applications, to optimize the planning, selection, arrangement, and placement of furnishings, cabinetry, fixtures, and materials. Emphasis is placed on integrating functional, aesthetic, and economic design factors to enhance efficiency and innovation for professional practice.

Prerequisite(s): C or better in MDSE 2490, FADM 2380, and FADM 3405; or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

FADM 3570 - Furniture and Decorative Accessories: Markets, Materials and Merchandising

3 hours The intersection of commerce and creativity in the Furnishings and Décor industry is examined in terms of materials, merchandising and more. Emphasis is on products, design, production processes, material innovation, brand development, market strategies, consumer behavior, and other topics. Digital tools such as CAD and AI may be employed.

Prerequisite(s): Grade of C or better MDSE 2490 (may be taken concurrently); or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

FADM 4400 - Capstone in Furnishings and Décor

3 hours (2;2) Integrates prior knowledge and new learning with a focus on industry products including companies, furnishings selection and arrangement, materials and finishes, and professional practices. Students examine bespoke treatments, material calculations and more. Digital tools such as CAD and AI may be used to enhance product knowledge and industry insights. A portfolio showcasing students' academic and creative works is developed.

Prerequisite(s): C or better in MDSE 2490, FADM 2380, FADM 3570, and FADM 3405; or consent of instructor

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

FADM 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

FADM 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

Game Studies and Design

GMSD 1800 - Survey of Game Studies and Design

3 hours Explores the dynamic realm of games as an artistic and industrial practice and as an academic discipline. Delves into the diverse landscape of games as a medium, examining their interpretation, analysis, and creation. Emphasizes both scholarly inquiry and practical skills.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 3800 - Game Production Pipeline

3 hours Embark on a journey through essential stages of video game production, from concept to prototype. Teams craft video games inspired by students' own concepts, guided by an understanding of industry standards and refined through rigorous playtesting.

Prerequisite(s): GMSD 1800; MRTS 3250; ENGL 3500; and either ENGL 3225 or MRTS 3630.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4200 - Topics in Game Studies

3 hours Rotating topics in game studies. Representative topics may include game history, player reception studies, and contemporary game culture.

Prerequisite(s): ENGL 3225 or MRTS 3630.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4300 - Topics in Game Design

3 hours Rotating topics in game design. Representative topics may include emerging game design principles, user interface design, game design systems and technology.

Prerequisite(s): MRTS 3250.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4400 - Topics in Game Narrative

3 hours Rotating topics in game narrative. Delves into various aspects within the realm of game storytelling. Representative topics may include narrative structures in games, character development, and interactive storytelling techniques.

Prerequisite(s): ENGL 3500.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4800 - Capstone 1 - Game Studio 1: Ideation and Prototyping

3 hours Initial stages of game development in the Advanced Video Game Production series (GMSD Capstone 1). Following industry standard practices, students craft their team's vision while considering experiential, theoretical, and economic factors. Under the mentorship of faculty acting as industry-style producers, students assume various roles and collectively lay the foundation for their games.

Prerequisite(s): GMSD 3800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4801 - Capstone 2 - Game Studio 2: Iteration and Refinement

3 hours Refinement phase of game development in the Advanced Video Game Production series (GMSD Capstone 2). Teams continue to polish their games, building upon the progress made in Capstone 1. Iteration, testing, pitching, and milestone achievements such as alpha, beta, and polished gold master stages are integral parts of this course. With guidance from faculty mentors, students apply skills and knowledge to bring a complete video game to publication, and are made ready for the team-centric, competitive landscape of the industry.

Prerequisite(s): GMSD 4800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

GMSD 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

General Music

MUGC 4890 - Studies in Music

1 hour Prerequisite(s): MUTH 2400.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUGC 4900 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall, Spring and Summer

MUGC 4910 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall, Spring and Summer

Geography

GEOG 1000 - National Parks: America's Best Idea

3 hours

Explores the history, processes, and values involved in developing national parks as places worth preserving for the American public.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 1200 - Global Societies

(GEOG 1303)

3 hours

Explores the changing world by understanding how the far and near are connected by globalization, why markets rise and fall, why income gaps and international poverty persists, how terror and conflicts are produced, and how cultures are re-invented.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 1500 - Geospatial Technology and Urban Environments

3 hours

Introduces students to the field of geography by examining geographical dimensions of environmental, social and economic issues in the DFW Metroplex. Blends traditional lectures with interactive web-based learning exercises using Geographic Information Systems (GIS) software to analyze a variety of datasets.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 1710 - Earth Science

(GEOL 1401 or GEOL 1101/GEOL 1301)

3 hours (3;2)

Principles and processes of physical geography. Introduction to mapping, weather and climate, soil and vegetation, and landforms of rivers, coasts and deserts.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 2110 - Foundations of Geographic Research

3 hours

Introduction to research for entry-level geography majors. Journal articles are examined in detail with reference to exploring research design and implementation. Students also develop an area of research interest, choose a specific topic, and formulate research questions from which hypotheses are developed. Culminates in the development of a research plan and prospectus for a topical research question.

Prerequisite(s): Geography major status.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 2170 - Culture, Environment and Society

(GEOG 1302)

3 hours

Exploration of the dynamic relations between culture and environment addressing ethnic diversity and conflict, development and underdevelopment, settlement patterns, movement of commodities and people (including refugees), and environmental degradation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 2180 - Geosystems, Environment and Society

3 hours

Examines the physical and human dynamics associated with topics such as earthquakes, landslides, volcanoes, coastal processes, streams and flooding, soils, ground water, mineral extraction/processing, air pollution, energy production, water resources, and waste disposal. Explores contemporary environmental issues and events, including some of the key environmental issues in North Texas.

Prerequisite(s): GEOG 1710 or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 2900 - Special Problems

1–3 hours

Individual readings and laboratory research projects in geology, earth and regional sciences.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 2996 - Honors College Mentored Research Experience

3 hours

Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3000 - Geo-literacy: Thinking in Space

3 hours

Examines core geographic concepts and their applications across disciplines as part of a multidisciplinary approach to solving big-picture problems. Cannot apply to the Geography major.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3010 - Economic Geography

3 hours

Examines the inter-connected and inter-dependent world economy. Focuses on world-systems, production, distribution, finance, labor, economic policies and economic change, and their socio-cultural implications. Fosters critical thinking along with social and environmental responsibility.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3050 - Introduction to Cartography

3 hours (1;2)

Technical aspects of cartography. Topics include map projections, geodetic datums and coordinate systems, scale, elevation, topographic maps, thematic mapping, introduction to total station surveying, GPS surveying and GIS.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3100 - United States and Canada: Economies, Cities and Sustainability

3 hours

Analysis of the economic and urban environments that have developed in the United States and Canada. Examination of the cross-border relationships that tie the two countries, with a focus on the resource and population issues that relate to sustainable development.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3120 - Medical Geography

3 hours

Focuses on the geographic aspects of disease ecology, health care delivery, and environment and health. Including the spatial pattern of diseases and associated explanatory variables including geological, meteorological, biological and cultural phenomena, as well as the social, political and economic barriers to healthy living.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3200 - Sustainability

3 hours

Introduction to sustainability concepts and practices. Includes topics on energy, water, waste, and transportation. Students conduct campus-based research projects on an area of sustainability.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3420 - Applied Biogeography

3 hours

Survey of biogeographic principles and their application to wildlife and ecosystem conservation and management practices.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3500 - Introduction to Geographic Information Systems

3 hours (1;0;2*)

Introduces the concepts and applications of computer-based spatial data handling, known as geographic information systems (GIS) technology. Illustrates the essential methods of GIS and its applications in fields including geography, business, administration, planning and environmental science. Students gain application skills via a series of practical exercises illustrating problem-solving strategies using up-to-date GIS software packages.

*These hours are combined lab and lecture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3600 - Political Geography

3 hours

Examines how political processes, space, and power are interconnected. Specific topics include nations and nationalism, identity politics, borders, colonialism, core-periphery relations, electoral geography, globalization, and war and violence.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3750 - Geography of Contemporary Sub-Saharan Africa

3 hours

Deals with the problems and prospects of development in Sub-Saharan Africa; examines the opportunities, constraints and dilemmas of Sub-Saharan Africa's physical and cultural landscape, contemporary problems and the challenge and prospect of development and globalization.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3760 - Geography of China: Environment and Society

3 hours

Introduces students to the history, culture, physical environments, and diverse populations of China to better understand current and future affairs. Evaluate recent developments in China from a geographical perspective.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3800 - Weather and Climate

3 hours

Explores atmospheric environment emphasizing the understanding and application of meteorological principles. Topics may include the composition, origin, and structure of the atmosphere, air mass, middle latitude cyclones, weather prediction, thunderstorms, tornadoes, hurricanes, global climate, climate change, and air pollution.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 3996 - Honors College Mentored Research Experience

3 hours

Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4060 - Applied GIS: MapInfo Professional®

3 hours (1;2)

Introduction to conceptual and practical aspects of geographic information systems. Emphasis on applications, using socio-demographic and business examples. Topics include importing and mapping census data, creating and editing map attribute databases, geocoding, buffering, aggregating data, thematic maps and applications.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4170 - Field Methods and Mapping

3 hours

Identification, collection, mapping, and recording of human and environmental data in the field. Involves both classroom and multiple outdoor exercises.

Prerequisite(s): Geography majors: junior or senior standing. Non-geography majors: contact the department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4185 - Statistical Research Methods in Geography

3 hours

Application of statistical techniques and mathematical models to spatial analysis, including both point and areal patterns. Examples drawn from both earth and regional science.

Prerequisite(s): MATH 1680.

Meets with GEOG 5185.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4195 - Geospatial Data Analytics and Visualization

3 hours Data structures needed to enable data analytics. Exploratory data analysis (EDA) and exploratory spatial data analysis (ESDA) to analyze complex, unstructured datasets. Transform data into information using geospatial and other data visualization tools.

Recommended: GEOG 2110.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4210 - Urban Geography

3 hours Examines urban processes, urban landscapes, and urban transformations. Specific topics include structure of cities, gentrification, suburbia, ghettoization, displacement, race, class, and ethnic dispossession, globalization of cities, urban riots, slums and homelessness, and social justice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4220 - Applied Retail Geography

3 hours Survey of the geographic principles and techniques used in the analysis of retail markets and locations. Examines the key characteristics of modern urban markets and commercial economies, and how geography makes a contribution to effective planning for retail firms.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications

3 hours Survey of the geographic concepts and applications that support business decision-making. Examines the context for application of geographic methodologies and explores the analytical techniques that relate to the needs of businesses operating across the global economy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4240 - Meteorology

3 hours Weather elements and controls; air masses and upper air wind flow; emphasis on atmospheric storm systems.

Prerequisite(s): GEOG 2180.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4245 - Geography of International Development

3 hours Examines theories and histories of development across different geographic contexts from global to local. Explores global policy regimes produced by organizations such as the World Bank, IMF, and WTO and their local impacts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4250 - Climatology

3 hours Description and analysis of world climates; major classifications, controls, regional distribution and change.

Prerequisite(s): GEOG 2180.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4260 - Oceanography

3 hours 3 hours Examines the structure, origins, and processes operating in the world's oceans. Covers the interactions among geology, chemistry, physics, climatology, environmental science, and biology in ocean contexts. Explores the impacts of humans on ocean life, environments, and global society.

Prerequisite(s): GEOG 1710 or GEOL 1610.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4350 - Geomorphology

3 hours Processes of landform analysis. Glacial, desert, fluvial and other settings are reviewed along with basic processes of construction, erosion and weathering.

Prerequisite(s): GEOG 1710, GEOG 2180.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4410 - Location-Allocation Modeling

3 hours Introduction to location-allocation models for service delivery. Covering, p-median, p-center and hierarchical models and their applications; data accuracy, aggregation and distance problems in location-allocation modeling.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4420 - Capitalism, Nature and Climate Change

3 hours Examines political-economy of human and natural resources and their implications for our environment and global climate change. Focuses on human population and its implications for our environmental, food and energy needs. Examines debates on sustainability across geographical scales. Fosters critical thinking and environmental responsibility.

Prerequisite(s): Junior or Senior standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4525 - Using LiDAR Data in GIS

3 hours Provides an overview of light detection and ranging (LiDAR) principles and data processing methods. Develops skills to effectively use LiDAR data in a geographic information system environment with applications in natural and built environments.

Prerequisite(s): GEOG 3500.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4530 - Remote Sensing and Digital Image Processing

3 hours Approaches to digital image analysis and processing. Includes topics on photo interpretation, information extraction from remotely sensed imagery for use in a variety of disciplines, including environmental and ecological science.

Prerequisite(s): GEOG 3500 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4540 - Introduction to Enterprise GIS Applications

3 hours Explore cloud computing technologies, how they are used to host, manage, transform, and visualize geospatial data. Implement open-source and commercial software GIS solutions including spatial databases, geographic data mediators, and dash-boards.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4550 - Advanced Geographic Information Systems

3 hours (1;0;2*) Advanced spatial analysis through the use of specialized software and the design and development of spatial databases and applications. The course includes GIS data models, project planning, raster-based data manipulation and analysis, three-dimensional (3D) analysis, network analysis, and other advanced topics in spatial analysis. Students gain advanced application skills through practical exercises and implementation of a GIS project in an area pertinent to the student's interests.

Prerequisite(s): GEOG 3500 with a grade of C or better.

*These hours are combined lab and lecture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4560 - Introduction to Python Programming

3 hours (1;0;2*) Automation is an important component of data processing, analysis, and visualization. Python is a powerful, general purpose programming language that is used for automation, scientific analysis, and other data management and visualization tasks. Examines the basics of writing computer programs in Python, input and output operations, logic and data structures, object-oriented programming, and data visualization using graphing libraries.

*These hours are combined lab and lecture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

GEOG 4570 - Special Topics in GIS

3 hours (2;1) Current topics and techniques in geographic information systems to complement core course work. Examples include multiuser geospatial data management, web-based map delivery, GIS programming, spatial statistics, applications for specific careers fields and other topics. Course content reflects recent trends in GIS research and the job market. Topics vary by semester.

Prerequisite(s): GEOG 3500 or consent of department.

May be repeated for credit for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4580 - GIS in Health

3 hours Spatial analysis, geographic information system (GIS) and computational methods for public health applications including disease mapping, disease clustering and exposure modeling. Location-allocation methods for measuring access to health care services also are discussed.

Prerequisite(s): GEOG 2110 and GEOG 4185, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4590 - Advanced GIS Programming

3 hours Methods of creating new applications and improving productivity in GIS through computer programming, culminating in a programming project. Topics include accessing maps and data layers, querying and selecting features, updating databases, and accessing raster and TIN/Terrain layers.

Prerequisite(s): GEOG 4560.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4710 - Ecosystems: Structure, Function and Services

3 hours Examines interactions between organisms and the physical environment as an integrated system and the factors that regulate the quantity and flow of materials and energy through ecosystems. Covers the history and use of the ecosystem concept, factors governing the distribution and structure of ecosystems, relationships between ecosystem structure and function, and the influence of natural and human processes on ecosystem dynamics. Discusses current topics and methods in ecosystem science.

Prerequisite(s): GEOG 2180 or BIOL 2140.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4750 - Surface Water Hydrology

3 hours Study of hydrological processes with emphasis on the hydrological cycle; soil moisture and infiltration; watersheds and drainage systems; flow mechanics, sediment transportation and deposition; and river response to climatic change and other impacts of human activity.

Prerequisite(s): GEOG 2180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4800 - Geography Capstone

3 hours Capstone course required of all geography majors. Requires comprehensive research paper. Problem solving by application of geographic concepts, methodologies and techniques. Examples drawn from physical and human geography.

Prerequisite(s): GEOG 2110 and MATH 1680, plus 9 advanced hours in geography, and junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4875 - Earth Science Topics

3 hours Topics emphasize human interaction with the physical environment, such as resource extraction, environmental degradation, climate change and earth-related hazards.

Prerequisite(s): GEOG 2180.

May be repeated for credit for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4885 - Human Geography Topics

3 hours Topics emphasize geographical patterns of human activity, including land use and resource consumption, economic development, globalization, social conflict and environmental policy.

Prerequisite(s): GEOG 2170.

May be repeated for credit as topics vary up to a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4920 - Internship Experience

3 hours Job experience in a government, nonprofit, or business setting. Requires formal report. Work should apply and build on skillsets developed in other classes the student has taken in major.

Prerequisite(s): Geography majors only. A minimum of 12 hours completed in the major, a 3.0 GPA in the major and consent of the department.

May apply toward any Earth Science, Human Geography or Techniques group requirement at discretion of the department. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOG 4960 - Geography Institute

3 hours For students accepted by the university as participants in special institute courses.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

Geology

GEOL 1610 - Introduction to Geology

(GEOL 1403 or GEOL 1103/GEOL 1303)

3 hours (3;2) Systematic exploration of your home planet, including processes that have shaped it over geologic time and continue today. Topics include plate tectonics, mountain building, and rock cycles; origins and distribution of energy, mineral and soil resources; geologic hazards including earthquakes, volcanoes, floods and coastal storms.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 3000 - Geology of Texas

3 hours Rocks, minerals, fossils and geologic history of Texas; the state's stratigraphic sequence, structural geology and mineral resources; field trips.

Prerequisite(s): GEOL 1610, GEOG 1710 or GEOG 2180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 3010 - Environmental Geology

3 hours Environmental geology is applied geology and focuses on applying geologic information to solve conflicts in land use, to minimize environmental degradation, and to maximize the beneficial results of using natural and modified environments. The application of geology to these problems includes the study of the following five subjects: 1) earth materials; 2) natural hazards; 3) land for site selection, land-use planning; 4) hydrologic processes; and 5) geologic processes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 3020 - Historical Geology

3 hours Topics to include stratigraphy, sedimentology, plant and animal fossils, geologic time, continental drift, tectonics, former seas and past environments. Emphasis on geologic history of North America. Field trips.

Prerequisite(s): GEOL 1610, GEOG 1710, GEOG 2180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 3030 - Earthquakes and Volcanoes

3 hours Use scientific methods and models to understand the causes of earthquakes and volcanoes, their effects on communities, and our best practices for mitigating these hazards. Evaluate the scientific, economic, and ethical viewpoints that inform personal and societal preparedness, response, and mitigation using examples from recent and historic earthquakes and volcanic eruptions.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 4630 - Soils Geomorphology

4 hours (3;2) Methods and applications of soils and landform analysis. Soils classification, formation processes and relationships to landforms and vegetation are stressed. Methods of soils description, mapping and physical-chemical analysis are taught, and applications to study of landscape change and land-use planning are emphasized.

Prerequisite(s): GEOL 1610, GEOG 1710 or GEOG 2180.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

GEOL 4850 - Introduction to Groundwater Hydrology

3 hours Topics to include principles of groundwater flow; aquifer properties and characteristics; geology of groundwater occurrence; groundwater development and methods for assessing and remediating groundwater contamination. Emphasis on application of basic principles.

Prerequisite(s): GEOG 2110, GEOG 2180 and MATH 1680.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

German

GERM 1010 - Elementary German

(GERM 1411)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 1020 - Elementary German

(GERM 1412)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): GERM 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 2040 - Intermediate German

(GERM 2311)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): GERM 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 2050 - Intermediate German

(GERM 2312)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): GERM 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 2900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be used once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3020 - Topics in German Studies

3 hours Continued general studies with varying emphasis on readings, conversation, aural and written practice.

Prerequisite(s): GERM 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3022 - Professional German

3 hours Expands and deepens students' cultural competency and communication skills by focusing on topics related to German business practices, the role of Germany in the European Union, science and technology, and the various professions associated with these subjects. All readings, course assignments, and discussions are conducted in the target language.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3034 - Advanced German Grammar

3 hours German grammar and intensive practice through various grammar exercises.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3040 - Topics in German Culture

3 hours Readings in Austrian, German and Swiss culture with emphasis on conversational practice.

Prerequisite(s): GERM 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3042 - German Cultural History (1900-2020)

3 hours Selected readings, films, and recordings on the cultural history of German-speaking Europe.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3044 - Contemporary Germany

3 hours Selected readings and films on history and culture of Germany since 1945.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3046 - German Culture Through Film

3 hours Socio-cultural influences on 20th-century German cinema.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3048 - Cultural History of Berlin

3 hours Selected readings and video sequences on the history and culture of Berlin with emphasis on communication skills.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3050 - Topics in German Literature

3 hours Readings in contemporary German-language literature with emphasis on conversational practice.

Prerequisite(s): GERM 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3052 - German Literary Survey 1750-1918

3 hours Survey of the literary canon from the German-speaking countries between 1750-1918 in the context of German history and culture.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3054 - German Short Stories

3 hours Introduction to short stories from the German-speaking countries and their respective authors. Analysis of the literary texts includes the discussion of thematically related topics of German, Austrian and Swiss culture.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3056 - German Novella

3 hours An overview of major German literary movements and authors from the nineteenth and early twentieth centuries.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3058 - German Graphic Novels

3 hours Exploration of socio-cultural topics in German society from the 1980s to the present through the lens of graphic novels. Discussions center on topics related to the Holocaust, the division of Germany, immigration, and confronting the legacies of colonialism, National Socialism, and the Cold War. Taught in German.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3060 - Advanced German I (Oral Communication)

3 hours Intensive practice in spoken German through an exploration of civilization topics.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3070 - Advanced German II (Written Communication)

3 hours Intensive practice in written German through an exploration of civilization topics.

Prerequisite(s): GERM 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4150 - Foreign Language Instruction and Assessment

3 hours Study of foreign language curriculum, instruction and assessment for future and current teachers of German.

Prerequisite(s): 6 hours of advanced German or consent of department.

Same as FREN 4150, JAPN 4150 and SPAN 4150.

Designed for students in a teacher preparation program. May not be counted toward a minor in German.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4310 - Topics in Advanced German Culture

3 hours Topics include German-language literature, music, art, literature as film, philosophy and historical developments.

Prerequisite(s): Must have completed 3 hours of advanced German.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4312 - The Weimar Republic

3 hours Overview of the cultural life and artistic output during the Weimar Republic, the German state between 1918-1933. Taught entirely in German.

Prerequisite(s): 3 hours of advanced German or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4314 - The Third Reich

3 hours Overview of the history and culture of the Third Reich (1933-1945) and the German postwar period until the foundation of the Federal Republic of Germany and the German Democratic Republic in 1949. Taught entirely in German.

Prerequisite(s): 3 hours of advanced German or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4320 - Topics in German Cinema

3 hours Topics include study of a period, movement, theme, genre or director.

Prerequisite(s): Must have completed 3 hours of advanced (3000-4999) German courses.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4330 - Topics in Advanced German Language

3 hours Topics include German grammar, syntax, language history, dialects and linguistics.

Prerequisite(s): Must have completed 3 hours of advanced (3000-4999) German courses.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4338 - German Translation

3 hours Basic techniques for translating texts from German to English, including literary texts, scientific texts, and journalistic texts.

Prerequisite(s): Must have completed 3 hours of advanced (3000-4999) German courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4350 - Topics in Advanced German Literature

3 hours Topics include study of a period, movement, theme, genre or author.

Prerequisite(s): Must have completed 3 hours of advanced (3000-4999) German courses.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4352 - German Travel Literature

3 hours Overview of canonical travel texts written by German-speaking authors between the late eighteenth and early twentieth century.

Prerequisite(s): 3 hours of advanced German or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4354 - German Disaster Narratives

3 hours In-depth analysis of disaster scenarios portrayed in German literary texts, images, and films from the nineteenth century to the present.

Prerequisite(s): 3 hours of advanced German or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4920 - Cooperative Education in German

1–6 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): GERM 2050; student must meet the employer's requirements and have consent of the department.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

GERM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Health Informatics

HINF 4506 - Artificial Intelligence in Health

3 hours Examines basic concepts related to artificial intelligence (AI) in health and state-of-the-art applications of AI in health, including topics such as machine learning for medical diagnosis, data analysis from electronic health records, image recognition in radiology, and personalized medicine. Discussions cover issues related to security and privacy considerations in AI for health as well as ethics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

HINF 4770 - Introduction to Health Data Analytics

3 hours Introduces key concepts of health data analytics and the role health data analytics plays in improving healthcare quality. Topics covered include types of healthcare data, data acquisition, data preprocessing, data integration, data visualization, and basic statistical analysis. Introduces students to a common programming language. Discussions cover ethical and privacy concerns within healthcare.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

Health Promotion

HLTH 1100 - School and Community Health Problems and Services

(TECA 1318)

3 hours Introduction to the field of health education and various health services offered by the school and community. Health problems and strategies to improve community health are explored.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 1900 - Principles of Health

(PHED 1304)

3 hours This course introduces principles of health behavior and fitness and effective strategies used for personal behavior change as well as strategies to promote health in others. In addition, the course provides an overview of various health topics such as stress management, addiction and substance use, emotional health, nutrition, and physical activity as well as communicable and non-communicable diseases. Students are introduced to the skills and knowledge required to become a successful professional in health and wellness industries.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 2200 - Family Life and Human Sexuality

3 hours Emphasizes issues related to sexual health from historical, physiological, psychological, social and cross-cultural perspectives. Incorporates a multicultural, multiethnic perspective on human sexuality, reflecting the diversity of sexual experiences in our society and world.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 3085 - Applied Sport Science

3 hours

Provides introductory instruction in exercise physiology and biomechanics. Emphasis is placed on the practical elements of exercise physiology, including adaptations to the many different forms of exercise training. Involves the analysis of efficient movement through a study of mechanical and anatomical principles and their application to human movement. Allows students to identify what physical qualities are most important for athletes to perform well in their sport.

Prerequisite(s): C or higher in KINE 2105 or BIOL 2301/2311 and BIOL 2302/2312.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 3150 - Psychology of Exercise

3 hours Introduces students to theories explaining and predicting physical activity behavior, psychological and physiological effects of exercise on mental and physical health, health and exercise behavior change strategies, and interventions for increasing physical activity participation and adherence across the lifespan.

Same as KINE 3150.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 3300 - Health Emergencies and First Aid

3 hours Theory and practical application of the American National Red Cross Standard First Aid and Personal Safety skills. Cardiopulmonary resuscitation (CPR) techniques and skill development. Designed to meet the requirements set by the American National Red Cross for certification in Standard First Aid and CPR.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HLTH 4300 - Workplace Wellness

3 hours Presents strategies for promoting health in a workplace setting. Introduction to the process of conducting a needs assessment as well as planning and evaluating programs to meet the mental and physical health needs of a designated group of employees.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HLTH 4340 - Minority Populations and Health

3 hours Introduction to the study of minority populations and health in the United States with a focus on health disparities experienced by groups based on race/ethnic identity. Students who successfully complete this course will have a foundational knowledge of epidemiology, etiology and health care service considerations that influence overall health status in minority populations. The emphasis will be on how to develop and implement health promotion strategies such as exercise that are tailored for minority populations.

Recommended: HLTH 1900 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HLTH 4360 - Chronic Disease Prevention and Management

3 hours Reviews how social, behavioral, and physiological lifestyle changes can be used to prevent and manage chronic conditions such as diabetes and cardiovascular disease. Emphasis will be placed on physical activity and nutritional modifications.

Prerequisite(s): HLTH 1900 with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HLTH 4600 - Behavioral Change Strategies in Health Promotion

3 hours Reviews behavior change theories and strategies for promoting health in both individuals and target populations. Focuses on the development of interpersonal skills in promoting healthy behaviors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HLTH 4850 - Internship in Health Behavior and Fitness

3 hours (1;internship) This internship course is a planned, supervised, and evaluated practice experience in the professional field of Health Behavior and Fitness. The goal of the practicum is to provide an opportunity for the student to apply practical skills, knowledge, and training learned through their coursework, become more familiar with professional job duties and responsibilities, and gain experience in a professional work environment. A minimum of 120 clock hours is required.

Prerequisite(s): HLTH 3300, HLTH 1900, HLTH 4300, HLTH 4600 with a minimum grade of C or better AND have a 2.5 overall GPA AND consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HLTH 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Higher Education

EDHE 3120 - Student Leadership Development in Higher Education

3 hours Developing campus student leaders through learning of leadership role, skills, theories and techniques.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDHE 4800 - Studies in Higher Education

1–3 hours Organized classes for specific program needs and student interest.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDHE 4900 - Special Problems

1–3 hours Individual instruction to cover course content in special circumstances.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

History

HIST 1050 - World History to the Sixteenth Century

(HIST 2321)

3 hours From the origins of civilization to the 16th century.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 1060 - World History from the Sixteenth Century

(HIST 2322)

3 hours World civilization from 1500 to the present.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 2610 - United States History to 1865

(HIST 1301)

3 hours From colonial origins through the Civil War.

Core Category: American History
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 2620 - United States History Since 1865

(HIST 1302)

3 hours From the Civil War to the present.

Core Category: American History
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 2675 - Honors United States History to 1865

3 hours From colonial origins through the Civil War.

Prerequisite(s): Acceptance into the Honors College.

Core Category: American History
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 2685 - Honors United States History Since 1865

3 hours From the Civil War to the present.

Prerequisite(s): Acceptance into the Honors College.

Core Category: American History
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 2910 - Special Problems

1–3 hours Prerequisite(s): Consent of department chair.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3000 - The Historian's Craft

3 hours Explores the methods professional historians use to conduct their work, the diverse meanings of modern historical interpretation, and the philosophical and political stakes that rest at the heart of historical scholarship.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3001 - Exploring U.S. Latinx Archives: Methodologies and Memory

3 hours Explores an array of archives to learn about the history of Latinx populations in the United States. Includes hands-on engagement with archival materials.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3010 - History through Video Games

3 hours Explores the historical themes, topics and moments within video games. Investigates how games introduce gamers to historical content and provide a narrative entry into the study of history for students, researchers and educators.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3020 - Introduction to the Health Humanities

3 hours

Explores the relationship between health and humanistic knowledge by examining the history of medicine, concepts of disease and illness, narrative medicine, health disparities, religion, spirituality, and the role of science and technology on the practices of healthcare.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3021 - History of Medicine, 1400 to Present

3 hours Examines the history of medical knowledge and practice from the early modern to the present with emphasis on Europe, its empires, and the Americas.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3050 - Introduction to Public History

3 hours History, theory, and practice of public history through a hands-on approach.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3051 - Digital Public History

3 hours Theories and methods of doing digital public history. Includes readings, site visits, and hands-on activities. Culminates in public-facing online project.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3052 - Mapping Slavery and Freedom

3 hours Uses GIS tools to explore the history of American slavery. Attention paid to mobility and migration, freedom seekers, and the resilience and agency of African Americans living under slavery and freedom.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3060 - History of Sexualities in U.S.

3 hours How concepts about sexuality changed and how sexuality relates to ideologies, identities and major trends like nation-building, the Enlightenment, slavery, capitalism, imperialism, urbanization and professionalism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3061 - Women in the United States to 1900

3 hours Women's daily lives, work, public and political activism; differences and divisions among women.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3062 - Women in the United States Since 1900

3 hours Women's daily lives, work and modern feminism; differences and divisions among women.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3063 - U.S. Gender and Race Since 1945

3 hours Focuses on the interplay between gender and race in U.S. history since 1945.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3080 - 20th Century U.S. Anti-War Movements

3 hours Examines the individuals, organizations, and ideologies that shaped anti-war activism and expression in the United States during the 20th century and how they intersected with discussions of citizenship, culture, and spirituality.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3100 - Early Modern Europe on Film

3 hours Explores early modern European history through the visual media of film. Considers the role of film as a medium for the representation of major social, political and cultural events.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3101 - The Six Wives of Henry VIII

3 hours Explores one of the most salacious storylines in European history: the many unhappy marriages of England's King Henry VIII (1491-1547).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3150 - Historical and Cultural Development of the Mexican-American Community

3 hours Historical evolution of Mexican-American culture, social structure, family patterns and community organizations, and their effects on education, economic and religious institutions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3160 - Latinx Civil Rights Movements

3 hours Examines how Mexican Americans, Puerto Ricans, Cubans, and Central Americans individually and organizationally demanded citizenship and civil rights throughout the 20th century in the context of collective action and relationships with other Civil Rights movements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3173 - Latin American Food History

3 hours Explores Latin American foods, ingredients, dishes, cuisines, and cooking artifacts and their impact across space and time. Investigates how food is connected to emotions, identities, labor, and politics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3190 - Mexico, 1810–Present

3 hours Social, economic and political history since independence.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3240 - African American History and Culture to 1865

3 hours Social, cultural and political history of African Americans from the colonial period; slavery and its consequences.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3250 - African American History and Culture Since 1865

3 hours Social, cultural and political history of African Americans in the United States; development of segregation; civil rights movement.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3260 - Slavery in the Americas

3 hours Comparative approach to the history of trans-Atlantic slave systems as they developed in the Americas from the 15th through the 19th centuries.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3280 - The French Empire since 1600

3 hours Traces the French Empire's extraordinary rises and falls from its seventeenth-century origins to the era of decolonization in the mid-twentieth century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3300 - Ancient Near East

3 hours Overview of developments in the Ancient Near East from ca. 3000-ca. 500 BCE, with an emphasis on southern Mesopotamia during this period. Topics include the origins of Ancient Near Eastern civilizations; the problems of ancient chronology; and the development of Near Eastern civilizations such as the Sumerians, Babylonians, Hittites, Assyrians, and Persians. Emphasizes the analysis of archaeological and literary sources to compare social, religious, and military concepts among Near Eastern Civilizations, an understanding of the role of cultural assimilation, and the contributions of these civilizations to modern notions of state formation and imperialism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3301 - Ancient Egypt

3 hours Ancient Egypt from ca. 3500 BCE to ca. 332 BCE. Specific emphasis on the political, social, and religious history of this time period. Contextualizes ancient Egypt as one of the major Mediterranean cultures that shaped world history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3302 - Ancient Greece

3 hours The development of Greek civilization and literature from its Bronze Age origins (Minoans and Mycenaeans) to the advent of Rome. Major topics include early Greek literature (Homer), Sparta, the political development of Athens, the Persian and Peloponnesian Wars, Philip and Alexander the Great, and the religious impact of the emergent Hellenistic Civilization.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3303 - The Roman Republic and Augustus

3 hours The development of the Roman state from the rise and fall of the republic to the establishment of the principate under Rome's first emperor, Augustus, in 27 BC. Key topics include the workings of republican government, the Punic Wars, the Gracchi, the Civil Wars of the first century BC, Julius Caesar and the final collapse of the Republic, and Augustus's imperial scheme.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3305 - The Early Byzantine Empire

3 hours Examines the history of the Byzantine Empire from ca. 300 CE-ca. 700 CE, emphasizing political, social, and religious history. Contextualizes the Byzantine Empire as one of the major Late Antique and Medieval Mediterranean cultures that shaped world history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3307 - Roman Warfare

3 hours Surveys the development of Roman warfare (in both theory and practice) from the early Republican period (ca. 500 BCE) to the fourth century CE. Examines primary and secondary sources to determine how Roman military history was inexorably intertwined with Roman notions of empire, leadership, and community; and how these Roman ideals have affected modern thinking on these issues.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3308 - Ancient Israel

3 hours Survey of the Hebrew people's attempts at early state formation from their origins to the Persian period (ca. 3000 BCE--ca. 500 BCE). Major themes include early incarnations of Israel as a state bordering stronger powers, notions and problems of state formation in the tradition of "Western" thought, the interplay between Jewish monotheism and assimilation with neighboring polytheistic cultures, and how this interrelationship informed Jewish notions of leadership and community. Concentrates on primary sources and on the most influential modern scholarship on Hebrew culture, ancient Israel, and its neighbors; also explores the use of archaeology and other non-literary sources to address the basic issues of the course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3333 - Horticultural Histories of North Texas

3 hours Engages with advanced readings, lectures, and field trips related to the history of plant-based food agriculture in North Texas.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3400 - History of American Country Music

3 hours Examines the history and evolution of country music and its subgenres in the United States from the early twentieth century through to the present day.

Course may be taught partially in Nashville, Tennessee.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3407 - Fitness Culture in U.S. History

3 hours Examination of the history of fitness and exercise in the modern United States. Considers the rise of organized exercise in terms of culture, politics, class, race, and gender history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3408 - Madness and Mental Health in U.S. History

3 hours History of madness and mental health in the United States between the 18th and 21st centuries. Development and evolution of psychology, psychoanalysis, and psychiatry. Influence of race, class, gender, sexuality, and social power on diagnosis and treatment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3410 - History of American Childhood

3 hours Examines childhood as a social and historical construct and explores how race, class, economics, war, gender, and geography affected children's health, growth, education, and access to safe spaces.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3440 - The Indian Ocean World

3 hours Examines the Indian Ocean World through the lives, objects, and ideas of the people that inhabited it from ancient to contemporary times.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3450 - Islam and its Empires

3 hours Dynamic social, political, religious, economic and cultural histories of the Islamic empires, beginning with pre-Islamic Arabia (4th–7th centuries) and ending with the height of Ottoman imperial authority (16th century). The emergence of Islam in Arabia and the world of Muhammad, its founder; the expansion of the Arab and non-Arab Islamic empires.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3460 - Modern Middle Eastern History

3 hours Historical foundations of contemporary ideologies, conflicts and cultures in the modern Middle East. Explores the role of imperialism in shaping the modern Middle East; explores the impact of religion and political ideologies on contemporary conflicts over space and resources; and examines how popular culture can influence political and social events through modern history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3470 - History of the Israeli-Palestinian Conflict

3 hours Explores major historical elements of the Israeli-Palestinian conflict and the broader Arab-Israeli conflict. Foundations of Israeli and Palestinian national identities, major historical moments that have intensified the conflict, changing patterns of U.S. foreign policy toward the region, and ways in which religious commitments inform approaches to ongoing conflict.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3480 - Colonial America

3 hours The English Colonies in North America to 1763.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3490 - Tracing Global Histories of U.S. Coffee Consumption

3 hours Explores global historical themes and processes through the lens of sugar, coffee, milk and spices.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3495 - United States Food History

3 hours Examines the history of American food and its relationship to identity in terms of nationality, race, gender, religion, politics, and other categories. Emphasis on the meanings Americans have assigned to food and eating over time.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3550 - Imperial China

3 hours Survey of the development of Chinese political philosophy, statecraft, economics and society from the Xia dynasty (ca. 2205 BCE) through the High Qing (late 18th century CE). Issues considered include the development and characteristics of the imperial state; the role of Buddhism in Chinese history; women's roles in family, state and society; and political, economic and cultural relations with non-Chinese peoples and states.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3560 - Modern China

3 hours Chinese politics, ideas, economics and society from the High Qing (late 18th century) through 1989; European idealism, the decline and fall of the Qing dynasty, Republicans and Communists, women, modernization and the question of democracy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3570 - Japanese History

3 hours Jomon Culture (ca. 10,500 BCE) through the 1970's; myth and history, the imperial system, Buddhism and Confucianism, samurai culture, modern economic development, European imperialism, Japan's rise to a world power, and the post-World War II "economic miracle."

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3600 - Evolution of Warfare to Napoleon

3 hours Art and science of warfare from ancient Greek society to the end of the French Revolution.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3610 - Evolution of Warfare from Napoleon

3 hours Art of warfare from the French Revolution to the Cold War.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3620 - Nazism: Symbolism and Archaeology

3 hours Investigates the Nazi regime of the 20th century before and during World War II and the symbolism and pseudo-archaeological methods it employed to misinform its own public and bolster its racist ideologies.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3630 - U. S. Navy, 1775–Present: Sails

3 hours History of the U.S. Navy from its origin in the Colonial period to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3700 - Texas History

3 hours Development of Texas from its frontier beginnings to an urban state.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3762 - Rome: The Biography of a City

3 hours Intensive study trip based in Rome, with excursions to other sites (e.g. Florence, Orvieto or Naples/Pompeii): overview of the history and culture of the city of Rome, from antiquity to the present, via personal encounters with the monuments, art and topography of the city. Exploration of the archaeology, history and art from the perspective of a single historical site: investigation of the impact of Rome in civilization, focusing especially on ancient Rome, medieval Christianity, and the Italian Renaissance.

Prerequisite(s): Consent of instructor(s), approved application from the Study Abroad Center.

May be repeated for credit. Previous experience in courses such as ART 2350/ART 2360 or HIST 1050/HIST 1060/HIST 3303 strongly recommended. No knowledge of Italian or Latin is expected.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3770 - Ancient and Medieval Women, Gender and Sexuality

3 hours Study of women, gender and sexuality in ancient and medieval civilization, approached through primary sources from the Ancient Near East (including the Hebrew Bible), Greece, Rome, early Christianity and the Middle Ages.

Prerequisite(s): HIST 1050 suggested but not required.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3777 - Israel in Jewish Memory and History

3 hours The role that Israel has played in Jewish identity, religion, and culture from ancient times to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 3780 - Empires and Europe's Early Modern World

3 hours Examines the expansive, diverse, and dynamic empires of early modern Europe between 1450 to 1800 from a global perspective.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3800 - History of the Present

3 hours Explores the historical contexts of present phenomena and recent events in order to understand how the past affects the ways that Americans live and think today.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3850 - The Early National Period of the United States, 1789–1848

3 hours Securing the republic, the rise of democracy, and territorial expansion.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 3871 - America in the Gilded Age

3 hours Examines the growth of industry and influence of robber barons, the destruction of the West, U.S. immigration, and the rise and implementation of American imperialism in American history between 1865 and 1912. Synthesize themes and facts about politics, race, gender, economics, and culture in the Gilded Age illustrating how these historical events affected the lives of everyday citizens.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3875 - Prosperity, Depression and a New Deal, 1918-1941

3 hours Examines the prosperity of the 1920s, the economic despair and environmental crisis of the 1930s, and the transformation that occurred in society, culture, politics, economics, and labor when these New Deal programs were implemented.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3900 - American Horror History

3 hours Examines the social and cultural history of the United States through horror films from the 1890s to the 2000s.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4004 - The Roman Empire

3 hours The development of the Roman state and society from the death of Augustus in AD 14 to the decline and fall of the Western Roman Empire in the fifth century. Major topics include dynastic intrigues, imperial wars and expansions, relationship of the Roman state with Jews and Christians, the "pax Romana" as a highpoint of Roman civilization, the third century crisis, Constantine, and the Christianization of the empire in late antiquity.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4006 - Roman Law and Order

3 hours An introductory overview of ancient law, with a focus on outlining Roman law as a formal system during the Roman Republic and Empire. Surveys law in pre-Roman civilizations, archaic Rome of the XII Tables, and Rome's development from a Republic to an Empire. Reviews major historical developments in the Roman state and its laws, as well as the practicalities of public order and law enforcement. Concludes with a consideration of the significance of Roman law to later civilizations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4008 - Ancient Religion and Magic

3 hours Explores major aspects of ancient "paganism," especially as practiced by Greeks and Romans from earliest times to circa 300 CE. The class focuses on the formal structures of religion, its everyday practices and beliefs, the role of religion and magic in people's lives, and the complex relationship between polytheism and monotheism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4050 - Russia from the 9th to the 19th Century

3 hours Key historical figures, events, culture and legends of old Russia and imperial Russia; process of social change and Russia's search for a place among world civilizations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4055 - The Russian Empire from 1700 to 1917

3 hours The Russian empire from Peter the Great and his early 18th-century modernizing reforms to Russia's last tsar Nicholas II, ousted by the revolution of 1917. In-depth study of key events and processes of social change while emphasizing political thought and ideologies such as nationalism and socialism, as well as the great achievements of Russian culture during this period.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4060 - Russia in the 20th and 21st Centuries

3 hours Social, political and cultural history of Russia in the 20th century, and the most recent events of the 21st century. Considers Soviet socialist experiments as an alternative way to modernity; also emphasizes the developments of Stalinism, based on modern approaches of Western and Russian historiography and new revelations from the Russian archives.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4061 - Russian Cultural History of the 19th and 20th Centuries

3 hours The cultural history of Russia in the 19th and 20th-centuries, examining achievements in art, film, literature, and music in the historical context of cultural politics, state regulation of the cultural field, repression of artists, popular, underground, and official culture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4065 - Warfare and Society in Europe from the French Revolution to World War II

3 hours Examines the evolution of modern warfare from the French Revolution to the Second World War, focusing on technological and tactical advances in the broader context of strategic thought, social change, international relations, and sharpening domestic politics that influenced strategic decision-making. Analyzes the ways that warfare, government, and society evolved together. Traces the deadly interplay of politics, culture, strategy, war plans, and technology from Robespierre to Hitler.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4066 - World War I

3 hours Explores the First World War in its global setting. Centered in Europe while also covering the rise of Japan and the United States in the context of the war and the post-war peace. Focuses on the military and naval rivalries that led to war and shaped the fighting, but also considers the social, political, cultural, and economic factors that tipped Europe into armed conflict, and then enabled exhausted,

decimated societies to hold on through four years of savage attritional warfare, with varying degrees of success.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4070 - World War II: European Theater

3 hours Europe, 1939–1945: military operations and occupations, the Holocaust, politics, diplomacy, and technology.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4072 - World War II in Asia and the Pacific

3 hours Explores World War II on the Asian continent and in the Pacific Ocean from 1931 to 1945, focusing on the participation of the United States and other Allies within a broader global context. Japan's reasons for going to war with the United States, Britain, and other countries and Japanese military strategies and tactics during the war.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4073 - World War II: The Soviet-German War

3 hours Military, ideological, and social history of World War II on the Eastern Front in Germany and the Soviet Union.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4074 - The Vietnam War

3 hours Examines the Cold War origins of the American military intervention in Vietnam and the major battles, leaders, and controversies of the long war.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4075 - The Korean and Vietnam Wars

3 hours Analyzes the domestic historical background and roots of the Korean and Vietnamese conflicts; their function as international proxy wars between the socialist and capitalist camps in the context of the Cold War; and their effects on Korea, Vietnam, China and the United States.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4076 - Comparative Civil Wars

3 hours The history of civil war across a variety of geographical and chronological contexts, from the Peloponnesian wars of ancient Greece to ongoing conflicts around the world today.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors

3 hours Social, legal, political, religious and intellectual developments in England from the early Middle Ages through the Reformation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4081 - The Rise of English Sea Power: 1399-1714

3 hours Explores the early modern history of the Navy Royal/Royal Navy. The administrative and technological development of the English navy during the reigns of the Lancastrian, Yorkist, Tudor, and Stuart monarchs; its use by those monarchs in the rise to power of the English state from 1399 until 1714; and the influence of both the navy and the sea upon English culture and society.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4100 - Modern Britain

3 hours

History of Britain from 1830 to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4101 - Women and the British Raj

3 hours The role, importance, and experience of British women and women from British colonies in the British Empire.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4110 - British Empire in Asia, Africa, and the Pacific

3 hours Examines the rapid expansion of the British Empire across Asia, Africa, and the Pacific after the loss of the American colonies, examining social, cultural, and political ideas of imperial subjects and anti-colonial activists from the nineteenth century to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4123 - Slander and Libel in Anglo-American History, 1500 to the Present

3 hours The history of name-calling in Anglo-American culture from the late medieval period to the beginning of the twenty-first century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4125 - The Military History of England and its Colonies

3 hours Series of demographic, social, religious and political convulsions transformed England into a modern nation state during the seventeenth and eighteenth centuries. England was also transformed, during this time period, into the preeminent naval and military power of the Atlantic World (i.e. the Americas, the Atlantic, western Europe and the Mediterranean). By following the development and accomplishments of England's fighting forces, this course examines the role of the military in early-modern England, the effects of the aforementioned convulsions on the military and the process by which England established itself as the West's premier superpower.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4170 - History of Tejanos/as

3 hours History of Tejanos/as is a general inquiry into the historical and cultural heritage of Tejanos/as who have lived or are currently living in what is today the Lone Star State.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4171 - Latin America: The Colonial Experience, 1492–1821

3 hours Surveys the history of Latin America from pre-contact civilizations and the arrival of European explorers to the Wars of Independence. Analyzes the strategies and logic of conquest; the material, psychological and environmental effects deriving from the expansion of empire; the issues of slavery, labor systems, religion and honor; and the movement towards independence.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4172 - Modern Latin America: 1810-Present

3 hours Surveys the history of Latin America from Independence to the present. Analyzes the formation of new states; the conflict between federalist and centralist groups; the role of caudillos in regional politics; the rise and crisis of export economies; international relations and the Cold War; U.S. involvement in Latin American affairs; the Mexican and Cuban revolutions; military governments and security structures; and current events in the region.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4174 - Revolutions in Twentieth-Century Latin America

3 hours Traces the major revolutions in twentieth-century Latin America and the factors that led Latin Americans to rebel and take up arms. Explores each revolution's goals and effects as well as the role that the United States played in these conflicts. Examines a wide range of primary sources, including memoirs, oral histories, photographs, and cartoons.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4175 - Slaveries in the Spanish and Portuguese Worlds

3 hours Explores different labor systems that emerged in the Spanish and Portuguese Worlds from the early Middle Ages through the early modern era.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4180 - Colonial Mexico and the Spanish Southwest

3 hours Conquest and expansion of the Spanish in North America.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4215 - Jews Under Greek and Roman Rule

3 hours History of the Jewish people from Alexander the Great to the spread of Islam; covers the Maccabean revolt, the Herodian dynasty, life in the diaspora, sects of Judaism, the ministries of Jesus and Paul, the Jewish revolts, early Rabbinic Judaism, and the development of Christian anti-Semitism. Readings include the Hebrew Bible, intertestamental literature, the Dead Sea Scrolls, the New Testament, Flavius Josephus and other historians, and Talmudic excerpts, as well as documentary sources.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4216 - Rome's Eastward Expansion: From the Punic Wars to the Jewish Wars

3 hours The expansion of Rome's sphere of influence to the east brought it into open conflict with Greek empires, the Parthian Empire (in Mesopotamia), and Judaea (an independent Jewish kingdom that became a Roman province). These military contests represented different challenges for Roman armies -- heavy infantry armies in Greece and Asia Minor, swift cavalry armies in Mesopotamia, and guerrilla forces in Judea. Analysis of Rome's successes and failures in the field reveals the secret of Roman military prowess.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity

3 hours Historical introduction to the origins and early spread of the world's largest religion. Historical climate into which Christianity first emerged: ancient Judaism, the Roman Empire and the cosmopolitan culture of the Hellenistic Greek cities. The origins and growth of Christianity itself: the ministry of Jesus, persecutions, the career of Paul, the slow growth of Christian communities and the conversion of Emperor Constantine.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4218 - Early Medieval Europe, ca. 312–1095

3 hours European civilization from the Christianization and decline of the Roman Empire to the eve of the First Crusade. Themes covered include the fall of Rome, the medieval church, monasticism, relations with Byzantium and Islam, Charlemagne and feudalism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4219 - Late Medieval Europe, 1095 to 1400

3 hours Crusades, investiture controversy, papal monarchy, late medieval piety and political theory.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4220 - The Renaissance

3 hours Europe in the 14th and 15th centuries; the rebirth of the dignity of man, the formation of nation states, Florence, Venice, humanism, art, plague, women, Machiavelli, and the flowering of the fine arts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4221 - Early Modern Europe and the World

3 hours Explores the major social, economic, cultural, and political developments that occurred in European countries from the end of the Counter-Reformation to the early eighteenth century, showing how Europe in this period was profoundly connected to the rest of the world.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4222 - Medieval Travelers

3 hours Explores the accounts of a variety of medieval travelers (c. 500-1500) from Europe to the Middle East to Asia, and analyzes how their voyages serve as examples of cultural contact, communication, and exchange. And yes, unicorns.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 4223 - Crusade and Jihad

3 hours Seminar in the history of the crusading movement of Western Europe (ca.1095-1291 C.E.) and the counter-crusades (jihad) and their impact on the civilizations of the medieval West and Middle East.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4224 - History of the Book

3 hours Seminar and workshop exploring the influence of changing technologies of writing on the formation of world cultures up to and including the digital age.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4230 - The Age of the Reformation

3 hours Europe in the 16th and 17th centuries; the Protestant Reformation, the Catholic Reformation and Counter-Reformation, Erasmus, peasant revolts, family life, Anabaptists and persecution.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History

3 hours Explores the history and significance of nationalism, Zionism and Islamism in modern Middle Eastern history. Analyzes the theories behind these movements as well as the historical application of them throughout the region.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4241 - World Histories of Pop Music

3 hours Explores the dynamic histories of popular music from around the world during the twentieth and twenty-first centuries and examines the impact that popular musical forms and performers had on world historical events.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4242 - Food in London: Tastes of an Empire

3 hours Study Abroad course. Immersion into food cultures of immigrant communities thriving in London. Analysis of the lasting impact of the British Empire on the modern world. Transnational history through food culture, consumption, and dining.

Restrictions: 2.5 GPA or above. Guidelines for Study Abroad must be followed. Must apply through Study Abroad office. Accepted students will be enrolled in the course.

Meets with HIST 5196.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4245 - Gender, Race and Class Issues in Middle Eastern History

3 hours Examines a variety of gender, race and class issues in modern Middle Eastern history, including the position of women in Middle Eastern societies, the role of minority ethnic groups (such as Kurds and Copts) in civil society, the crisis of masculinity and imperialism in the Middle East, and the impact of economic programs on class systems.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4246 - Imperialism in the Modern Middle East

3 hours The modern history of imperialism in the Middle East. Historical foundation concerning classic Islamic styles of empire and the history of European and Ottoman imperialism, as well as anti-imperial and post-colonial movements, in the past 200-plus years. Includes many contrasting arguments about empire and postcolonialism to give students a wider sense of the variety of issues, ideas and historical conclusions concerning this dynamic and influential region.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 4247 - A History of Jews in the Middle East

3 hours Examines the long-standing history of Middle Eastern Jewry and the experiences of Jews living in the Islamic empires of the medieval period and in the era of European imperialism. Delves into the changes that Jews and non-Jews experienced in the Middle East with the introduction of Zionism from Europe and the creation of Israel in the 20th century and Jewish experiences in the modern Middle East both outside and inside of Israel.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4248 - Palestinian History

3 hours Explores historical foundations and interpretations of modern Palestinian History. The history of the Holy Land from the early modern period (the Ottoman imperial era), through the 19th century, the end of the Ottomans and the creation of the British Mandate era of Palestine, Palestinian history in the Mandate period, and Palestinian history from the creation of Israel in 1948 to the early 21st century, both within historic Palestine as well as the Palestinian diaspora in the world.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4249 - Food, Sex, and Drugs in Middle Eastern History

3 hours Explores how the commodities of food, sex, and drugs have influenced Middle Eastern History since the 7th century. Focuses on changing attitudes and trends in food, sex, and drugs through time and the complex contributions of these concepts/things/ideas in shaping the region in various historical eras.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4250 - Modern Middle Eastern Diasporas

3 hours Investigates the histories and experiences of migration and diaspora in modern Middle Eastern history. Explores the reasons why people migrate, how diasporas evolve, and the ways that personal and collective identities shift in the context of migration, expulsion, exile, and diaspora. Focuses on diasporas inside the Middle East and North Africa (MENA), as well as outside the region, including in the Americas and Europe.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4260 - Topics in History

3 hours Specific historical topics: Groups A (U.S.), B (Europe) or C (Africa, Asia and Latin America); classification depends on the topic.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4261 - Topics in United States History

3 hours Specific historical topics in U.S. history.

May be repeated for credit as topics vary. Satisfies Group A requirements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4262 - Topics in European History

3 hours Specific historical topics in European history.

May be repeated for credit as topics vary. Satisfies Group B requirements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4263 - Topics in African-, Asian- or Latin American History

3 hours Specific historical topics in African-, Asian- or Latin American history.

May be repeated for credit as topics vary. Satisfies Group C requirements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4270 - The American West

3 hours Surveys the history of the western United States and nearby border regions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4271 - Hollywood and the Wild West

3 hours Introduction to the critical study of western films from an historical perspective.

Prerequisite(s): HIST 4270 is recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 4272 - Explorers of North America

3 hours History of North American exploration and cartography from the 1400s to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4275 - American Environmental History

3 hours Introduction to major topics in American environmental history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall, Spring and Summer

HIST 4276 - Animal Histories

3 hours Surveys the environmental and cultural histories of animal-human relationships and explores the role of nonhuman animals as historical actors.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4282 - Settler Colonialism and Empire

3 hours Examines the history of the settler locations of the modern British Empire in Australia, New Zealand, Canada, the North American colonies, and South Africa. Thematic topics include military expansion and cultural encounters, native resistance to European powers, the history of race and science, and the role of settlers in modern-day decolonization.

Prerequisite(s): HIST 1060 recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4283 - Decolonization in Asia and Africa

3 hours Examines the modern histories of Asian and African experiences of colonialism, nationalism, and decolonization. Focus on the politics, economics, and cultural aspects of colonialism, nationalism, and decolonization from the early nineteenth century to the mid-twentieth century.

Prerequisite(s): HIST 1060 recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe

3 hours Christianity through the Enlightenment; monasticism; rise of schools and universities; philosophy; religious dissent and Protestantism; the Scientific Revolution; women, the family and sexuality.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4300 - The French Revolution, 1774–1799

3 hours Social, economic and political study of the crisis of the Old Regime and collapse of the French monarchy; special emphasis on the radical transformation of the French state by forces unleashed by revolution.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4301 - Napoleonic Europe, 1799–1815

3 hours Traces the rise of Napoleon, his empire and his impact—political, social, economic, military—on France, Europe and Americas, culminating with his final defeat at Waterloo and his influence on subsequent European history.

Prerequisite(s): HIST 4300 suggested but not required.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4302 - Wars of Napoleon, 1792–1815

3 hours Examination of the conflicts of the Napoleonic era that demonstrate the evolution of war and warfare in the Western world.

Prerequisite(s): HIST 4301 suggested but not required.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4303 - Age of Empire 1848-1914

3 hours A thorough examination of the long-term origins of World War I since the end of the Revolutions of 1848 and the forces that changed the balance of power and led Europe down the path to the Great War.

Qualifies as “A” or “B” or “C” categories in the department’s curriculum requirements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4310 - Gender and Sexuality in Early Modern Europe

3 hours Covers the mid-16th to late 18th centuries; controversies generated by women’s political influence, forces shaping masculinity and femininity, regulation of sexual behavior, and the impact of sexuality on individual identities before 19th-century psychologists articulated the notion of sexual orientation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4315 - History of Anti-Semitism from Ancient Times to the Present

3 hours Examines the history of anti-Semitism from ancient Egypt to the contemporary world. Topics include pagan responses to Jews, Christian theological anti-Semitism, the first Crusade, the ritual murder accusation, the blood libel, the Inquisition, impact of the Reformation, Russian pogroms, anti-Semitism in America, the Holocaust, Holocaust denial, and Arab anti-Semitism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4320 - Anti-Semitism in Europe, French Revolution to Present

3 hours Anti-Semitism in Europe, French Revolution to present: anti-Semitism and European Jews.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4335 - Age of Revolutions: Europe, 1700–1918

3 hours European political, social, economic and cultural developments from the Old Regime to the Russian Revolution. Topics include the agrarian and industrial revolutions, the Enlightenment as spiritual revolution, the French Revolution and the Revolutions of 1848 and 1917. Provides a survey of key events and processes of social change while emphasizing ideologies such as nationalism, socialism, liberalism and conservatism, considering the cultural context of the revolutionary changes and how they affected people's lives.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4350 - Europe, 1914–1945

3 hours World War I; rise of Fascists, Nazis and Communists; the Great Depression; World War II and the Holocaust.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4360 - Europe since 1945

3 hours Economic recovery and subsequent stagnation, retreat from empire, popular culture, revolution of 1968, domestic politics, diplomacy, collapse of socialism and disintegration of the eastern bloc, European integration.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4364 - Germany from Luther to Napoleon, 1500 to 1815

3 hours Explores the origins of modern Germany in the Reformation; the Thirty Years War; the rise of absolutism; the emergence of Prussia and the decline of Habsburg, Austria; and the German reaction to the French Revolution and Napoleon.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4365 - Modern Germany, 1815–Present

3 hours Overview of developments in Germany from the Congress of Vienna to the present, addressing topics such as the quest for national unification, rapid industrialization, Germany's position in central Europe, the role of elites in shaping government policy and social values, Germany's role in launching two world wars, the Holocaust, and Germany's ambivalent reception of western values.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789

3 hours The French Revolution, romanticism, reform movements, realism, feminism and the intellectual currents of the 20th century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4385 - Nazi Germany

3 hours Comprehensive, sophisticated account and analysis of the Nazi period in German history, exploring issues related to the content and implications of Nazi ideology, the role of Hitler, the complicity of elites such as Junkers, the military, the churches and big business. Examines the origins both of the Nazi movement and of the conditions in Germany that led to the movement's rise to power. Analyzes the consequences of the implementation of Hitler's policies in the forms of genocide, military conquest and defeat.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4390 - The Holocaust, 1933–1945

3 hours European Jews and their destruction during Nazi Germany's ascendancy; Jewish communities and anti-Semitism before the Nazis; institutions and processes of extermination; victims, including non-Jews; perpetrators; historical background.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4391 - War Crimes, Genocide, and Justice

3 hours An examination of war crimes, genocides, and the development of international law to seek justice for these actions from antiquity to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4395 - The State of Israel

3 hours History of the modern State of Israel, including the prestate period, Zionism, the Arab-Jewish/Israeli conflict and wars, immigration, social and religious groups and cleavages, terrorism, culture, politics, religion and identity.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4405 - History of the Body

3 hours The experience and meaning of human bodies through medicine, politics, and culture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4406 - Sickness and Health in U.S. History

3 hours Survey of medicine and health in the US, from colonial times to present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4411 - Pirates, Smugglers, and States in the Atlantic World, 1600-1856

3 hours Piracy's "golden age" was a symptom of weak states that could not project power at a distance. Introduces two competing narratives about the rise, nature, and fall of Atlantic piracy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4435 - Jewish Americans and Popular Culture

3 hours

Investigates the experience of Jewish Americans as participants, influencers, and creators of 20th century popular culture, such as comic books and film.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4444 - Historical Teaching and Scholarship on Race

3 hours Topics concerning pedagogy, race, and the decolonization and democratization of historical practice in the realms of education and scholarly research.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4451 - African American History During Segregation Era

3 hours Examines problems of periodization and geography, the issue of white and black distance and propinquity, de jure and de facto segregation, Jim Crow socialization, and African-American resistance.

Prerequisite(s): HIST 2620 recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4455 - History of Black Women in America

3 hours Historical exploration into the characteristics, cultures and reflective thoughts of Black women in America.

Same as WGST 4460 .

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4456 - United States Labor History

3 hours Surveys the history of labor in United States from Colonial period to present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4462 - Religion in American History

3 hours Uses "religion" as a category of historical analysis to examine the diversity of religious belief, practice, and experience in the American past and present and how religion and American culture have shaped and reshaped each other over time. Explores the ways in which religious affiliation and belief have shaped social, economic, and political power in America.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4475 - Jewish Women in Modern America

3 hours Examines the changing experiences and representations of American Jewish women (and men) over the course of the last century. Topics include transformation of gender identity, gender and family, work, entertainment, sex, religion, and feminism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4490 - The American Revolution – Causes and Consequences

3 hours The founding of the United States.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4520 - Doing Digital History

3 hours A project-based course. Learn and apply digital tools and methods to a historical question to produce new scholarship. Communicate findings through digital means.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4565 - Chinese Military History, 1750-Present

3 hours Chinese military history from the Qing Empire's military expansion of the mid-18th century through the early 21st century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4575 - Military and Diplomatic History of the Cold War in East Asia

3 hours Explores the military and diplomatic history of the Cold War in East Asia.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4580 - Africa to the Nineteenth Century

3 hours The ancient civilizations of Egypt, Kush, Axum, Ethiopia, Sudan and others; contacts with Europe and Asia, Islam, and the slave trade.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4590 - Modern Africa

3 hours Africa since 1800 emphasizing colonial rule, African resistance, modern states, history of wildlife conservation, and effects of climate change.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4600 - Late Medieval and Early Modern South Asia

3 hours Examines the history of the Indian subcontinent from 1000 to 1835 CE.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4605 - History of South Asia, 1757–1947

3 hours Examines the modern histories of South Asia (India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, Afghanistan, and the Maldive Islands) from 1757–1947. Topics include the East India Company in Southern Asia, the transition to formal colonialism, the 1857–58 rebellions and mutinies, colonial British Indian culture, anti-colonial resistance, nationalism, and the partition of British India in 1947.

Prerequisite(s): HIST 1060 recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4610 - Contemporary South Asia

3 hours Examines the contemporary histories of South Asia (India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, Afghanistan, and the Maldive Islands) from 1947 onward, including the 1947 partition of India, India-Pakistan relations since 1947, the role of Afghanistan in South Asia, and themes such as religion, caste, gender, minorities, cinema, popular culture, and sport.

Prerequisite(s): HIST 1060 recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4631 - North Atlantic Maritime History: 1427-1838

3 hours Explores the European-dominated economic system that depended upon access to and reasonably unfettered use of the sea, focusing on the development of what Europeans proclaimed to be the modern world during the Age of Sail. The maritime aspects of European exploration of the world, the development of ships and navigational technology, naval developments, general maritime economic theory, and maritime cultural history.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4640 - History of U.S Military in 19th Century

3 hours An overview of United States military history during the nineteenth century.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4641 - History of U.S. Military in 20th Century

3 hours An overview of United States military history from 1900 to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4642 - War and American Society, 1608-2001

3 hours Focus on the various ways in which the homefront has dealt with conflict and the changes that have taken place in American society as a result of war.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4750 - Social Studies Teaching Methods

3 hours

Designed to help prepare students to teach social studies courses for students in grades 7–12. Students are exposed to the content and pedagogy to teach Texas history, U.S. history, world history, world geography, government and economics.

Prerequisite(s): Major must be History with Teacher Certification or Social Science with Teacher Certification.

Senior status and consent of department.

Same as UCRS 4700.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4830 - Rise and Fall of the Slave South

3 hours Explores the development of the American South from its earliest colonial settlements through its destruction during the U.S. Civil War, examining the broad economic, political and social development of the region while focusing on the role that slavery played in shaping the southern United States as a major economic and political force in the 19th-century Atlantic World.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4840 - Making of the Modern South

3 hours Examines the social, political and cultural history of the American South as a distinct region of the United States from 1865 to the present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4860 - The Civil War and Reconstruction

3 hours The slavery issue, secession, the appeal to arms, and Reconstruction.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4870 - Making of the Modern United States, 1877–1929

3 hours The era of industrialization, reform, war and reaction.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4881 - Conspiracies and Conspiracy Theories in U.S. History

3 hours Explores how conspiratorial thinking develops, how and why some Americans have come to embrace it, how media environments influence the spread of conspiracy theories, and how conspiracy theories in the U.S. have changed over time.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4882 - The United States During the 1960s

3 hours Explores the decade of the 1960s in the United States, paying particular attention to the social, cultural, and political shifts that occurred during these years.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4884 - Social Movements in United States History

3 hours Surveys the history of social movements in the United States from 19th century to present.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4885 - History of Sports and American Society

3 hours Historical survey of the impact of sports and recreation from the colonial period to the present. Investigates the history of sporting and athletic endeavors by tracing their rise from informal folk games to a multi-billion dollar entertainment industry in the course of U.S. history. Examines the humble beginnings of these **"**wicked amusements**"** in colonial and pre-colonial America and follows them forward to the present time, including current controversies such as stadium welfare, steroids and Native American mascots.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4890 - Civil Rights and Black Power Movements in the U.S.

3 hours Surveys the history of American civil rights movements from 1865 to the present, with special attention to the 1945–1968 period. Analyzes the background of the modern civil rights movement; the goals and strategies of its participants and those who opposed it; the role of the federal government in creating reforms; and the enduring importance of the movement in contemporary America.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10
Typically Offered: Fall and Spring

HIST 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4910 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

HIST 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

Honors Courses

HNRS 1000 - Honors First-Year Seminar

1 hour HNRS 1000 is a one-credit hour course for entering Honors College students. The course serves as a gateway—both professional and personal, academic and extracurricular—to the opportunities that await members of the UNT Honors community. The course is designed to promote greater self-awareness and to help students understand themselves as scholars, individuals, and global citizens. Students will investigate their college experiences holistically. Reflective exercises and discussions encourage students to explore their academic strengths and to develop an Honors plan of study informed by their personal values and goals.

Prerequisite(s): Admission to Honors College.

HNRS 1100 - The Good Society

3 hours Human beings form social groups to meet their common needs, such as order and infrastructure. For thousands of years, thoughtful people have asked questions about the nature of these human societies. Explores questions of ongoing interest and importance, including how good societies deal with poverty, illness, education, environmental issues and criminal behavior. Human rights, biodiversity and war are also considered. Takes an interdisciplinary approach to the study of these topics, and seeks to provoke critical thought rather than offer answers.

Prerequisite(s): Admission to Honors College.

HNRS 1500 - Introduction to Research: An Interdisciplinary Perspective

3 hours Interdisciplinary lecture and discussion course on the basic principles of research in physical and life sciences, social sciences, humanities and the arts. Students apply basic research methods to specific research topic and present research in class including a prospectus defense and poster presentation at University Scholars Day. Topics covered include critically reviewing literature, research methods, ethics and values in research, safety issues, intellectual property rights, research funding, research presentations and publication.

Prerequisite(s): Admission to Honors College.

HNRS 2900 - Special Problems

1–3 hours May be repeated for credit.

HNRS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

HNRS 3200 - Qualitative Research Methods

3 hours Students learn how to identify approaches and elements of qualitative research design. Specific qualitative approaches—ethnography, field research, phenomenology, grounded theory, and case study—are included to help students learn how to investigate the social world. Students also explore qualitative data collection techniques, such as observations, interviews, content analysis, and other sources of data, as well as methods for analyzing qualitative data.

Prerequisite(s): HNRS 1500 and/or have participated in mentored research and/or comparable undergraduate research experience as determined by the college.

Restrictions: Must be an active member of the UNT Honors College.

HNRS 3500 - Honors Thesis Proposal Development

3 hours Students develop a thesis proposal, including identification of a research topic, review of relevant literature and/or theory, formulation of hypotheses or research questions where relevant, addressing ethical and safety issues, developing a research budget, and developing a timeline for the research. Students will identify a thesis advisor in their major as a part of the course.

Prerequisite(s): Department consent; enroll through the Honors College advising office.

HNRS 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; permission of Honors College dean.

May be taken twice for Honors College credit.

HNRS 4000 - Honors Capstone Seminar: Global Perspectives

3 hours The Capstone Seminar is the final course for students enrolled in the Honors College. Students explore various issues of global importance.

Prerequisite(s): Good standing in the Honors College and completion of at least 12 semester hours of honors courses.

HNRS 4100 - Honors Colloquium

3 hours Interdisciplinary colloquium on various topics of significant interest.

Prerequisite(s): Acceptance to Honors College and upper-division standing or consent of college.

May be repeated for credit as topics vary.

HNRS 4900 - Special Problems

1–3 hours May be repeated for credit.

HNRS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Hospitality Management

HMGT 1420 - Food Sanitation

1 hour Introduction to food service sanitation, providing training in the regulations and procedures necessary to prevent food poisoning and food-borne diseases in a food service environment. Applies toward hospitality pre-major requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 1470 - Introduction to Professional Food Preparation

3 hours (2;3) Laboratory-based course designed to familiarize students with professional food preparation principles and techniques. Food Service sanitation provides training in the regulations and procedures necessary to prevent food poisoning and food-borne diseases in a food service environment. Uniforms required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 1500 - Orientation to the Hospitality Industry

3 hours Survey of the hotel, restaurant, club and food service industries, including history, scope, organization and career opportunities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 2280 - Hospitality Accounting I - Financial

3 hours Application of financial accounting principles to the hospitality industry: uniform system of accounts for restaurants, hotels, and clubs; completion of the accounting cycle for hospitality operations; transactions related to payroll, inventories, receivables, and payables for the hospitality industry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 2470 - Introduction to Professional Baking

3 hours (2;3) Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products.

Recommended: HMGT 1470.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

HMGT 2480 - Hospitality Accounting II - Managerial

3 hours Comprehensive application of accounting principles to the hospitality industry. Managerial accounting approach to accounting practices, financial statements and operating activities. Problem-solving methods applied to managerial decisions for the hospitality industry. Applies toward hospitality pre-major requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

HMGT 2800 - Foundations of International Travel and Tourism

3 hours Travel and tourism examined from global, industry and developmental perspectives. Topics include historical, contemporary and future effects of travel and tourism as related to social, economic, cultural and environmental issues.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 2810 - Introduction to International Sustainable Tourism

3 hours Global travel and tourism examined through the lens of sustainability and the triple bottom line: the economic, socio-cultural, and environmental effects of tourism on a destination. Introduction to the different components of the travel and tourism industry with a particular focus on examples of high and low sustainability practices in each industry, using case studies from around the world as illustrations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

HMGT 2850 - Introduction to Agritourism

3 hours Covers the foundational concepts of agritourism including entrepreneurial engagement in agritourism and the agritourism sector's connection to sustainability as it relates to economic, socio-cultural, and environmental pillars. Provides an understanding of the relevance of the agritourism sector to other market segments within the hospitality and tourism industry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Summer Only

HMGT 2920 - Analytical Tools for Hospitality and Tourism

3 hours Prepares students with data analytic skill that helps businesses to make better decisions. Designed to give students a working knowledge of computer-based analytical tools with the aim of better analyzing data and presenting the findings. Introductory course in the use of Word, Excel, PowerPoint, and infographic tools and covers topics such as advanced word functions, basic Excel operations, analytical functionality of Excel, infographic makers, and PowerPoint presentations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

HMGT 3200 - Hospitality Industry Law

3 hours Study of business-related torts and contracts, real and personal property, with an emphasis on hotels, restaurants, resorts and associated businesses. Includes duties of innkeepers and food and beverage liability.

Prerequisite(s): Hospitality major.

Recommended: Minor status.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 3251 - Restaurant Operations

3 hours (2;6) A laboratory-based course designed to familiarize students with both dining room service, and with an understanding of quantity food production principles and techniques. Students apply organizational and management skills in the actual operation of a restaurant facility.

Prerequisite(s): HMGT 1470. Student must complete ServSafe Food Protection Manager Certification or an alternative certification which is accepted by the department. Both can be completed concurrently.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 3260 - Resort and Club Management

3 hours Introduction to managing resorts and private clubs. Emphasis on needs assessment, planning and development, marketing, hiring, staff evaluation and management, legal issues, and financial management.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 3300 - Hospitality Industry Marketing and Sales

3 hours Application of marketing principles, methods and techniques to the hospitality service product. Analysis of principles of guest behavior, market research, promotion and marketing strategies. Function of convention and meeting sales related to lodging and tourism operations. Application of menu engineering techniques.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 3470 - Global Kitchen: A Culinary Journey

3 hours (2;3) Explore the cultural impact of geography, migration, war and crop movement on ingredient selection and cooking techniques. Prepare, taste, and evaluate traditional, regional dishes of the Americas, Asia, Europe, Africa and the Mediterranean. Topics include similarities between food production systems used in the United States and those used in other regions of the world.

Prerequisite(s): HMGT 1470 or consent of the instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

HMGT 3700 - Hotel Operations

3 hours (3;1) Detailed study of different departments within hotel properties. Emphasis on front office, food and beverage, housekeeping, engineering, security, sales and marketing and accounting.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 3860 - Foundations in Leading Hospitality Organizations & Talent

3 hours Introduction to motivation, leadership, communications, decision making, and leading people through effective management of human resources, ethics, social responsibility, and managing consumer experiences in the hospitality industry by examining service-driven management foundations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 3900 - Principles of Viticulture

3 hours Introduces the basic principles underlying cultivation, growing, and harvesting of grapes for production of wine as well as fundamentals of malt production, storage, and roasting for beer production. Key topics include pruning, grafting, and propagation of vines, diseases and pest control. The influence and importance of climate, economic factors affecting choices of vineyard type and location are also discussed. Also covers different types of malts, significance of varying malt biochemical composition, styles of malt roasting, and industry trends. Involves two to three visits to local vineyards and malthouses for observations and on site activities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

HMGT 3910 - Principles of Enology

3 hours Introduces the basic principles of enology including the history and development of the wine industry; factors affecting wine quality; winemaking operations including harvest, scheduling, crushing, fermentation, and record keeping. The covered concepts also include safety and sanitation practices, fermented beverage analysis including tests for free and total SO2, volatile and titratable acidity, pH, Brix, total alcohol. Involves two visits to local wineries for observations and on site activities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

HMGT 3920 - Recent Developments in the Hospitality Industry

3 hours Extensive study of current developments facing employers in the hospitality industry. Particular emphasis is given to selected readings and case studies dealing with societal, consumer and operational management issues and trends. Supported in part by Ben E. Keith Lectureship Series.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 3925 - Principles of Brewing

3 hours Introduces the basic beer manufacturing principles including the history and development of the beer industry; factors affecting beer quality, brewing operations including malting, fermentation, beer spoilage, maturation, and packaging. The covered concepts also include developments in the beer industry, global trends, and brewery engineering and fermenter designs. Involves two visits to local breweries for observations and on site activities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

HMGT 3940 - Marketing and Distribution of Wine and Craft Beverage

3 hours Covers fundamentals of marketing and distribution as they apply specifically to the beer and wine industry. The list of topics covered includes product differentiation, brand development, label and bottle design, and consumer behavior. Also explores the unique requirements for procurement and distribution of raw and finished material, value chain challenges within the craft alcoholic beverage industry, and inventory management. The emerging trends in distribution systems, consumer behavior, and sustainability in alcoholic beverage industry are also addressed.

HMGT 3955 - Applied Business Fundamentals for Wine and Craft Beverage

3 hours Covers fundamentals of business research and plan development for craft beverage focused entrepreneurship. The list of topics covered includes competitive analyses, capital and personnel requirements, local regulations, and compliance. Also explores the role of economic environment, emerging technology and trends in business sustainability, growth, and brand management.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

HMGT 4001 - Chicago Study Tour

3 hours Experience the hospitality and tourism industry in Chicago with visits to special event and tourism venues, city clubs, hotels, airlines, industry corporate headquarters and participation in the largest trade show in the restaurant industry (NRA). Specific topics may include labor relations and unionization; food trends and convention operations.

Prerequisite(s): UNT student in good standing & Instructor Approval.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Summer Only

HMGT 4002 - Dallas Study Tour

3 hours The Dallas Study Tour is a semester-long for-credit course that provides real-world exposure to Hospitality Management and Event Design and Experience Management. Students engage with industry leaders from destination marketing organizations, premier venues, top attractions, destination management companies, and seasoned event planners. Provides students with an understanding of the intricate business relationships between destinations, venues, attractions, and the events industry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

HMGT 4150 - Casino Management

3 hours Principle and practice of casino business. Topics include the history of gambling, organizational structure, types of casino games, casino operation, casino marketing, casino accounting, and gaming control regulations.

Prerequisite(s): Must be 18 years old.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 4210 - Hospitality Cost Controls

3 hours Study of the food, beverage and labor cost control systems used in the hospitality industry. Emphasis is on the use of control systems for managerial planning, analysis and evaluation. Includes the concept and terminology of costs; departmental income and expense statements; budgets; purchasing, receiving and inventory systems.

Prerequisite(s): HMGT 2280 or ACCT 2010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 4300 - Survey of Beverages in the Hospitality Industry

3 hours Study of social beverages commonly used in the hospitality industry. Primary emphasis is on history, language, product identification and production and merchandising techniques for wines, beers, distilled spirits and non-alcoholic beverages.

Prerequisite(s): Student must be 21 years of age or older.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4480 - Hospitality Industry Finance

3 hours Comprehensive application of financial management for the hospitality industry. Managerial finance approach to ratio analysis, risk and value, timing and value of cash flows, project valuation, capital expenditures, financial markets and income taxes. Problem-solving methods applied to managerial decisions for the hospitality industry.

Prerequisite(s): HMGT 2280; Junior Standing required, or instructor consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

HMGT 4490 - Hospitality Revenue Management

3 hours Comprehensive analysis of theories and strategies of revenue management that directly affect operations in the hospitality industry, such as strategic pricing, demand forecasting, data analysis, inventory management and distribution channel management. Application of revenue management techniques using data analysis and programs to maximize the hospitality firm's profitability.

Prerequisite(s): C or higher in HMGT 3700; Junior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

HMGT 4600 - Technology and Innovation in Hospitality, Event and Tourism

3 hours Designed to familiarize students with the strategic use of technology and new trends of innovation in the hospitality, event and tourism fields. Topics include the unique needs for and characteristics of technology and innovation in the aforementioned industries, as well as management, operations, and impacts of technology and innovation on organizations and the industry as a whole.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4820 - Facilities Planning, Equipment, Layout and Design

3 hours Principles of hotel and restaurant property management and facilities layout and design, emphasizing equipment selection, space allocation, guest and production/service traffic flow patterns and facility operations management.

Prerequisite(s): Junior Standing required, or instructor consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4860 - Hospitality Business Strategies

3 hours Comprehensive study, strategic management, leadership and analysis of the hospitality manager's role in operating a successful hospitality operation. Capstone course for the hospitality management degree program.

Prerequisite(s): HMGT majors only; must be taken in final 18 hours of coursework.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

HMGT 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

Human Development and Family Science

HDFS 1013 - Human Development

(TECA 1354)

3 hours Introduction to the theories and processes of physical, cognitive and social development of the individual from conception until death.

Suitable for non-majors; HDFS majors should take in their first term/semester.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 1023 - Assessment and Observation

3 hours Methods in observation and reporting of child development. Developmental assessment of infants, children and adolescents. Methods, reading and reporting of research in human development and family science.

Recommended: HDFS 1013 or concurrent enrollment in HDFS 1013.

HDFS majors should take in their first year.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2013 - Introduction to Human Development and Family Science Theories

3 hours This course provides an introduction and overview of theoretical perspectives used to study individuals and families. Practical application of theories and their relation to working with individuals and families will be examined.

HDFS majors should take this course in their first year.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2033 - Parenting

(TECA 1303)

3 hours Commonalities and differences in parenting, caregiving and family life are emphasized from systems, ecological and cross-cultural perspectives. Parenting and caregiving in diverse family forms and cultures are studied in relation to adult-child interactions, parent/school/community relations, family roles, laws and parenting skills.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2042 - Professional Development in Human Development and Family Science

2 hours Introduction to the field of human development and family science. Research and strategic planning for careers, professional activities, development of professional competencies and ethical decision making.

HDFS majors should take in their first year.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2313 - Courtship and Marriage

3 hours Study of dating, courtship and marriage relationships.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2900 - Special Problems in Human Development and Family Science

1–3 hours Open to lower-level students capable of developing a problem independently. Problems are chosen by the student and developed through conferences with the instructor.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 2996 - Honors College Mentored Research Experience in Human Development and Family Science

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3113 - Infant and Child Development

3 hours Growth and development of the child from conception through middle childhood, including the influence of the family and environment. Basic principles of physical, cognitive and socio-emotional development will be covered.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3123 - Child Development for Non-Majors

3 hours Study of the physical, cognitive and socio-emotional development and learning of children and adolescents, ages 3 through 18.

May require some observation and case study.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3153 - The Impact of Culture on Individuals and Families

3 hours Study of diverse cultural and societal dynamics that influence individuals and families. Focus is on dimensions of culture, ethnicity, economic status, religion, gender and lifestyle that affect individual development and family functioning. Provides an opportunity for students to learn and celebrate diversity of individuals and families by enhancing their knowledge, promoting interaction and facilitating discussions regarding cultural and social issues that affect the population.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3213 - Infant and Toddler Intervention and Education

3 hours Focus on roles of professionals and parents/caregivers in fostering individual infant and toddler development through appropriate interactions and care, safe and healthy environments, and developmental intervention. Observations with infants and toddlers required. Course has been approved as fulfilling competencies for Early Intervention Specialist Credential.

Prerequisite(s): HDFS 3113 or equivalent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3313 - Interpersonal Relationships

3 hours Study of interpersonal relationships across the life span in a variety of contexts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3413 - Grief, Loss and Bereavement

3 hours Focuses on gaining knowledge of death, loss and bereavement across the lifespan (i.e., infants through late adulthood), along with interventions for the bereaved. Students are prepared to interact with, and assess the needs of, individuals and families who have experienced different types of loss (e.g., sudden, anticipated loss, ambiguous) and targets of loss (e.g., sibling, spouse). Assists students in exploring their own perspectives on death and bereavement in an effort to gain a greater understanding of how their own perspectives impact their responses to others. Consideration is given to how faith, culture, religion and the sociohistorical context impact each individual's understanding of death and bereavement.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

HDFS 3423 - Family, School and Community

3 hours Analyzing family, school and community resources and needs as related to the family life cycle; child welfare and education, ecological approach; and exploration of careers related to children and families. Strategies to improve communication and collaboration are emphasized with a focus on family types, cultures, economic conditions, school systems, community services, political forces, advocacy groups and other factors that impact young children and their families. Fifteen hours a term/semester in field work arranged.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 3533 - Families in Crisis

3 hours This course examines the experiences and outcomes of individuals and families in crisis. Family adjustment (prior to crisis) and adaptation (post-crisis) to stress, perceptions of crises, individual and family resources and coping strategies will be explored and analyzed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4011 - Pre-Internship

1 hour Provides a bridge from theory to professional practice. Determining career goals and assuming professional ethics, roles and responsibilities are emphasized. Preparation and placement for an in-depth internship related to or within the field of development and family science.

Prerequisite(s): HDFS 2042.

A grade of C or better in this course is a requirement for registration in HDFS 4023.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4023 - Internship

3 hours Requires a minimum of 150 clock hours of in-depth experience with an approved agency or research related to development and/or family science, plus seminar. Emphasis is placed on application of knowledge and skills to actual job roles and responsibilities.

Prerequisite(s): Must have received a grade of C or better in HDFS 4011.

May be repeated for credit up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4133 - Adolescence and Emerging Adulthood

3 hours Theories and characteristics of physical, cognitive and social development between 11 and 25 years of age. Effects of family, school, community and other factors on adolescence and emerging adulthood are also addressed.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4213 - Child Life Seminar

3 hours Provide historical and theoretical perspective on the development of the child life field and information on fundamental skills required to help children and families cope with the stress of the healthcare experience.

Prerequisite(s): Junior or senior standing, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4233 - Guidance of Children and Youth

3 hours Best practices in individual and group guidance and management of children from birth through adolescence. Focus on behavior in the context of family, culture and social practices. Requires a minimum of 5 hours field experience involving observations of and interactions with infants, children or youth.

Recommended: HDFS 3123.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4253 - Administration of Programs for Children, Youth and Families

3 hours Analysis of programs, personnel policies, facility administration and related topics for teachers and administrators who work with children, youth and families.

Recommended: Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4323 - Family Law and Public Policy

3 hours Laws and public policies as they relate to and affect the family.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4353 - Current Research in Family Science

3 hours Exploration of current research and theory as it applies to family systems in social contexts; includes analyzing literature regarding issues that impact families.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4413 - Family Life Education

3 hours The practice and process of family life education and training of professionals in the child development and family field. Curriculum and program development and evaluation. Teaching strategies and professional responsibilities.

Prerequisite(s): HDFS 2033.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4433 - Family Resource Management

3 hours Application of principles of family resource management includes goal setting; decision making; and time, energy, financial and consumer management.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4463 - Marriage and Relationship Education

3 hours Comprehensive training, application, and practice of marriage and relationship education curriculum. Research and strategies for implementing relationship and marriage education and family life classes and programs in the community are examined.

Prerequisite(s): Junior or senior standing; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4800 - Studies in Human Development and Family Science

1–3 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4900 - Special Problems in Human Development and Family Science

1–3 hours Open to advanced students capable of developing a problem independently. Problems chosen by student and developed through conferences with the instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

HDFS 4951 - Honors College Capstone Thesis in Human Development and Family Science

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Industrial Distribution

INDS 1001 - Seminar in Industrial Distribution I

1 hour This course combines students and corporations in teams that work together to find solutions to shared problems. Partnerships are established with corporations, early-stage start-ups, and expert knowledge partners to establish an understanding and apply solutions for open-ended and societally impactful problems.

Prerequisite(s): Declared majors in industrial distribution. Non-Industrial Distribution majors only with consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 2001 - Seminar in Industrial Distribution II

1 hour Combines students and corporations in teams that work together to find solutions to shared problems. Partnerships are established with corporations, early-stage start-ups, and expert knowledge partners to analyze solutions for open-ended and societally impactful problems.

Prerequisite(s): Industrial Distribution majors must have successfully completed INDS 1001 with a grad of C or better. Non-Industrial Distribution majors only with consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 2020 - Industrial Physics

3 hours Introduction to and demonstration of basic laws and concepts of physics through operation of industrial practices. Emphasis on understanding physical principles behind working of modern technologies and interplay between science and technology. Emphasis on observation, interpretation and conceptual understanding of physical phenomena such as motion, momentum, energy, waves, light, electricity and magnetism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3000 - Foundations of Science and Technology Analysis

3 hours Builds upon basic science and technology mathematics and shows how it applies to solving fundamental technical problems. Illustrates why mathematics is important in a technical career by demonstrating how technical problems can be mathematically described and methodically analyzed to find a solution. A number of applied examples from various applied technology disciplines will be analyzed and solved.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3010 - Digital Trends in Industrial Distribution

3 hours Examination of the top digital trends that are attributed to the digital transformation in industrial distribution. Each trend is explained, defined and simplified. The students will get to know the main component and structure of the trend, learn how to apply it at a professional level and get to know the main global market players and providers of the technology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3020 - Industrial Channel Selling

3 hours Begins from the framework of understanding complex engineered systems and an understanding about interactions between constituent sub systems, and then parts. Focus on ensuring students understand the manufacturing, wholesaling, distribution and end-customer value channel in terms of acquisition and life cycle cost. Students will develop the inter-channel selling skills and strategies required by today's professional technical salesperson. Topics include channel structure, channel-to-channel and business-to-business sales, channel communication skills, relationship selling, product and service strategies, sales force management and measuring performance.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3030 - Industrial Computer Science and Informatics

3 hours Introduces concepts, tools, techniques and applications of informatics in computer science. Includes an overview of programming, data management, visualization, modeling and social implications with an emphasis on current trends. Students will use computer technology to gather, synthesize, store, visualize and interpret information to apply capabilities and technologies of informatics as they apply to industrial problems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3040 - Designing and Managing the Development Enterprise

3 hours Introduction to the attributes associated with the design and management of technical enterprise that is responsible for designing, developing, testing, operating and maintaining the system. Built on a fundamental that the successful development of a system is directly contingent on the human system. Using foundational constructs related to network theory and the extended enterprise, covers topics that directly impact the performance of technical enterprises. Case studies and academic research are used to provide a practical and advanced understanding of the subject.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3050 - Storytelling for Strategic and Professional Communications

3 hours Examines the aspects of human communication in public speaking, small group and the virtual workplace. Designed to help students build confidence in their public speaking skills; learn to effectively participate in and lead small groups, develop the skills necessary to communicate in a virtual and digital environment, and know how to present persuasive ideas in a variety of modes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3060 - Complexity and System Dynamics

3 hours Builds upon a conceptual foundation that ensures systems are properly defined, conceived, and realized. Emphasizes perspectives, frameworks, the role of paradox and connectedness to enable people to see the bigger picture; one in which solutions and problem descriptions are portrayed as a whole for resolving complexity. Students play an active role in learning through live projects, class exercises, class discussions, dialogue with guest speakers, participating in industry visits.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3070 - Industrial Design Thinking

3 hours Provides a systematic approach to innovation and creative problem-solving that can be used in many disciplines. Creativity and innovation are keys to an organization's ability to gain competitive advantage and survive in industry. Provides students with an understanding of how creativity and innovation can be facilitated and managed in a work setting using design thinking.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3110 - Industrial Chemistry

3 hours Introduction to the basic foundational concepts of the chemical and business aspects in industrial processing as well as the actual operations in chemical industries and knowledge of key areas such as raw materials, sourcing, processing, and intermediates and conversion of chemical materials to final products. Case studies of various industries such as petrochemical, food, cosmetics, pharmaceutical, nutraceutical, pollution and water are examined.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3130 - Industrial Life Sciences

3 hours Introduction to the elements of life science, the current and expected capabilities and products, the structure of the industry, and their impacts on society. Among the topics addressed: human and animal medicine, environmental biology, modern agriculture, bio-imitation for design and industrial application.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3140 - Applied Fermentation

3 hours An introduction to the basic elements of microbial fermentation and its application in commercially important food and beverage, industrial, and healthcare products. Topics discussed include types of fermentation, microbe and environment interaction, brewing and vinification processes, and emerging applications of fermentation in agricultural and food waste management. Extensive hands-on projects, including a 2-week beer brewing project.

Prerequisite(s): INDS 3130.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 3150 - Industrial Cost Management

3 hours Provides an understanding of both the tools and models that can be used through industrial channels to conduct trade-offs between performance and life cycle cost. Students are exposed to the methods, processes and tools needed to conduct economic analysis, estimation and management of life cycle cost perspectives of industrial channels.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 4000 - Visual Thinking and Data Design

3 hours Introduction to the art and science of data analytics and visualization for effective communications. The process of visual thinking and design of data includes the physical, mathematical or otherwise logical representation of a system, entity, phenomenon or process. This includes data modeling, data processing, mapping data attributes to graphical attributes and strategic visual encoding based on known properties of visual perception.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 4010 - Introduction to Industrial Systems and Analysis

3 hours Fundamentals of systems engineering processes and planning. Focus on needs identification, problem definition, generating requirements, system architecting, concept of operations, systems engineering management and the application of systems engineering in different disciplines. Course material is articulated through examples and case studies. Emphasis is placed on enhancing the effectiveness and efficiency of industrial systems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 4020 - Industrial Channel Strategy

3 hours A systematic approach to helping an enterprise analyze and improve its products, processes and channels. All products are designed, developed and engineered to support an enterprise strategy, therefore, an understanding of the processes and channels is crucial to choosing how to build, distribute and manage these products. A business process is a collection of activities operationalized through channels that creates an output (e.g. product) that is of value to a customer. Business processes and channels can be improved at any level of an organization or can be improved across multiple organizations (i.e. the enterprise). This course covers the strategic, operational and technological aspects of business processes and channels by relating them to quality improvement and enterprise operations. In addition, students will be exposed to and understand game theory depictions of different channel structures.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 4040 - Industrial Innovation and Ideation

3 hours Introduction to corporate entrepreneurship with an emphasis on learning how to find business ideas, how to evaluate their potential and how to recognize the barriers to success within a corporation. Students are exposed to the challenges of developing

innovation in a corporate environment, the uncertainties that exist, the behavior of an entrepreneurial spirit, and legal and regulatory issues.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

INDS 4800 - Internship for Industrial Distribution

1–6 hours To learn to apply knowledge and skills, as well as to gain an understanding of change and planning within workplace cultures, students benefit from individualized experiences lasting an entire term (or more). Internships provide such a learning environment mentored by both the UNT instructor and a workplace internship supervisor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Information Science

INFO 1700 - A.I. and Me: Technology Ethics for the Information Ecosystem

3 hours Explores the impact of the rapid evolution of information technology on human beings and how they interact with information in the world around them. Focus is placed on the basic ethical principles that guide the responsible use of emerging technologies and reflection and civic discussion about how artificial intelligence and other technologies may shape the future of how we find, use, and share information with one another. Suitable for students at all levels who wish to explore important issues at the nexus of technology and people. A non-technical class for students who want to explore the ways that technology impacts them and the people around them.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 2010 - Informatics and Society

3 hours Introduction to the relationship between information, technology, users, and society. Topics include cultural heritage informatics, health informatics, legal informatics, human-centered information systems, social informatics, user experience and user interface design, and the foundation of information management, such as information storage, retrieval, and information behavior.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 2091 - Saving Culture: An Introduction to Archival Studies

3 hours We are defined by our cultural heritage, and yet the tangible and intangible evidence of cultural heritage is at risk of erasure. Targeted wartime destruction, natural disasters, misinformation campaigns, and resource scarcity all contribute to the destruction of cultural heritage. Course offers broad overview of the causes of destruction and an introduction to archival management of heritage materials.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 3385 - Community Language Archives & Digital Repositories

3 hours Introduction to existing community language archives, to principles and practices of creating and managing a community language archive as a digital repository. Selection of language materials and collection development. Using generative Artificial Intelligence tools to process materials. Choosing suitable digital content management application and using it to provide online access to information resources in community language archive. Describing and promoting community language archive collections and items to ensure their discovery and reuse.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 3647 - Legal Research, Information, and Access

3 hours An introduction to legal research systems and databases. Course covers legal database search syntax, common organizational structures such as topic and jurisdiction, and the use of A.I. and large language models in legal research platforms. Lectures, readings, seminar discussions and problem sets focus on U.S. legal materials, primarily using federal law publications as examples. Students put their research into practice by attending court hearings, analyzing the legal subjects and practice areas discussed in those hearings, and conducting directed research that the litigants and/or attorneys in those matters could use. Enables students to meet the information needs of the legal community and legal information companies and organizations.

100% online with optional synchronous sessions that include database tutorials. No on-site meetings.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4080 - Research Methods and Evaluation

3 hours Research principles and techniques; role of theories and hypotheses; experimental and non-experimental research; measurement and data collection; analysis and interpretation; quantitative methods and applications; problems in formulating research proposals and evaluating representative studies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4090 - Practice Work in Information Agencies

3 hours Supervised practice work and field study (120 clock hours minimum) in a cooperating learning resources center or information agency, plus seminar conferences and summary report.

Recommended: 12 hours of prior courses in the school and application early in prior term/semester.

For students without prior field experience. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4100 - Introduction to Information Sciences

3 hours Serves as a core course of the BS-IS program and prepares undergraduate students in the field of information science to understand the origins and history of information science, essential characteristics and scope of this discipline, as well as its fundamental principles and international standards. Guides students through each of the essential conceptual blocks of information science such as information behavior, bibliometric analysis, information organization and retrieval, e-publishing, information security and privacy, the future of the discipline.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4203 - Information Indexing and Organization

3 hours Applications in different types of information systems of text documents, images or audio files. Use of database retrieval software to store and represent information. Indexing formulation, automatic programming, and design for user support. Planning and implementing multimedia documents.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4206 - Information Retrieval Systems

3 hours Computer-based storage and retrieval of textual, pictorial, graphic and voice data. Addresses questions about how users interact with information retrieval (IR) systems, their components, evaluation and their impact in society. The issues of representation, the nature of the query, and other aspects of the system are examined.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4208 - School Library Organization and Media

3 hours Cataloging and classification of print and nonprint collections. MARC records. School library automation systems and their management. Media and media services, including services special to populations. Representative problems and library experiences.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4223 - Introduction to Descriptive Metadata for Organizing Information

3 hours

Introduction to descriptive metadata as the cornerstone of organizing information resources and enabling information discovery. Development of technical and analytical skills in descriptive metadata creation and evaluation. Introduction to descriptive metadata principles and best practices. Practical application of the most well-known metadata scheme in the world: Dublin Core Metadata Element Set (DCMES 1.1). Exploration of the structure and components of any metadata scheme. Introduction to and application of standards for representing names, subjects, and other attributes of information resources in metadata. Exploration of encoding metadata with Extensible Markup Language (XML). Introduction to descriptive metadata quality. Explorative evaluation of human-created and GenAI-created metadata records

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4230 - Records Management Operations

3 hours Management operations for records control and use; preparation, organization, storage, retrieval and dissemination. Preservation, security and disposal problems. Planning and supervising records management programs. Departmental functions and organization. Data-processing applications and online systems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4300 - Administration of Information Agencies

3 hours Role, functions and development of principal kinds of information centers and agencies. Management principles and practices; standards and evaluation; resources and services; facilities and equipment; planning, staffing and reporting; public relations; budgeting and financial procedures; policy making; social contexts and backgrounds; professional perspectives.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4306 - Project Management for Information Systems

3 hours Managing the process of planning, developing, implementing and evaluating systems, including defining requirements, developing requests for proposals, evaluating alternative systems, and locating and hiring consultants.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4307 - Knowledge Management Tools and Technologies

3 hours Introduction to knowledge management technologies; Internet and web technologies; knowledge management processes and corresponding technologies; collaboration tools and technologies; information and knowledge portals; KM readiness and IT infrastructure; evaluation and selection criteria for knowledge management tools.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4365 - Health Sciences Information Management

3 hours Introduction to computer-based health sciences information centers. Topics include: health sciences environment, management, collections, users, project planning, information technology, evaluation and assessment, professional activities of health information management specialists, including the growing emphasis on evidence-based practice, informatics, and trends that affect future practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4400 - Evaluation and Development of Information Resources

3 hours Principles and techniques of selecting and acquiring information resources of all kinds; development and maintenance of collections; criteria and selection aids; national and trade bibliographies; online searching; publishers and publishing; censorship problems and intellectual freedom; representative problems and practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4420 - Information Resources for Children

3 hours Survey of print and nonprint materials, including multicultural/multiethnic materials; utilization practices and selection; curricular correlations and enrichment; recreational and developmental needs; children's services and programs; wide reading and use of literature and other materials for children from preschool through middle-school years.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4430 - Information Resources for Young Adults

3 hours Survey of print and nonprint materials, including multicultural/multiethnic materials; utilization practices and selection; curricular correlations and enrichment; recreational and developmental needs; young adult services and programs; wide reading and use of literature and other materials for young adults from upper middle school through high school years.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4615 - Electronic Information Services

3 hours Basic concepts of electronic information services and databases in different fields; conducting online searches and evaluating services. Supervised practical experience.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4620 - Information Resources in the Humanities

3 hours Information resources, methods and services to meet access needs in the humanities. Literature searching and communication patterns in individual fields. Role of professional organizations and government. Representative problems and practice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4630 - Information Resources in Sciences and Technology

3 hours Information resources, methods and services to meet access needs in science and technology. Literature searching and communication patterns in individual fields. Role of professional organizations and government. Representative problems and practice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4637 - Medical Informatics

3 hours History of medical information. Biomedical communication. Types of information resources and services related to the transfer of information in the health sciences. Computer applications to health sciences libraries. Analyses of current issues in the health care field and their relationship to health sciences libraries and information centers, ethics, confidentiality and security.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4640 - Information Resources in the Social Sciences

3 hours Information resources, methods and services to meet access needs in the social sciences. Literature searching and communication patterns in individual fields. Role of professional organizations and government. Representative problems and practice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4646 - Information Resources in Business

3 hours Information resources, methods and services to meet access needs of business as a discipline and in practice. Characteristics of information services to a specific, diverse user community. Introduction to and development of print and electronic forms of information relevant to the business community's information needs.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4670 - Data Analysis and Knowledge Discovery

3 hours Introduces the student to data analysis, data mining, text mining and knowledge discovery principles, concepts and practices to approach data and data mining tasks and techniques using suitable software and other data analysis tools. Covers principles and theories of data mining and text mining techniques as well as analytical applications of data mining and knowledge discovery tools.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4685 - Information Resources in Culturally Diverse Communities

3 hours Information resources, methods, and services to meet access needs of diverse communities. Issues in the provision of information services to diverse communities. Study of the needs and cultural milieu of these communities. Materials and methods for serving these groups.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4707 - Data Modeling and Data Warehousing

3 hours Introduction to traditional linear and relational database theory and practice. Main focus is on modern approaches that include SQL and NoSQL, graph-based databases for structured and unstructured datasets, and standards for data representation and exchange (RDA, XML, JSON, etc.).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4709 - Data Visualization

3 hours This course is designed to enable students to combine statistical methods and graphic-centered computer-based treatment of structured and unstructured data. It includes theoretical considerations to visual design as well as practical computer scripting that will enable students to use visualization techniques and the necessary tools to visualize large sets of data and facilitate visual analysis.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4710 - Information Technology Management

3 hours Basic concepts of information and its role in an information society. Includes mechanisms of information processing, information transfer, and applications of computers and other information tools in various disciplines and fields.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4720 - Multi-Media Production

3 hours Nonbook resources and services in different kinds of libraries and information/media centers. Includes preparation and organization of materials, instructional design and materials production, and the use and maintenance of related equipment. Supervised laboratory experience.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4730 - Digital Curation and Preservation

3 hours The abundance of electronic and computer-based information requires a new type of professional to examine the life-cycle of the new type of information content: digital content. Decisions about the preservation of this new type of material are not trivial, and include its descriptive components and particular formats and standards for long term archival storage and access. This course is about the tools and techniques to accomplish these goals.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4745 - Information Architecture

3 hours Introduces the basic concepts and components of information architecture within the context of end-user and organizational needs. Provides an understanding of the intellectual technologies necessary to design and implement effective and cost-efficient information systems such as digital libraries, database systems, and a range of other web-accessible resources, as well as collaborative computer systems in organizational environments. Students conduct a collaborative term project to design and implement a real-world system integrating the knowledge and skills learned on organization of information, visual design, human interface and usability issues.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

INFO 4750 - Managing Automation Projects

3 hours Covers initiating, planning and managing projects to select, acquire, develop and install new, replacement and upgraded computer-based systems in libraries/information agencies of all types and sizes, oriented around activities necessary for effective automation projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4900 - Special Problems

1–3 hours Supervised individual or small-group study of special problems or topics not otherwise covered by regular course offerings.

Prerequisite(s): Consent of instructor and department chair.

May be repeated for up to 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4910 - Special Problems

1–3 hours Supervised individual or small-group study of special problems or topics not otherwise covered by regular course offerings.

Prerequisite(s): Consent of instructor and department chair.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4960 - Information Science Institute/Seminar

3 hours Special institute course/seminar.

Prerequisite(s): Consent of the department chair or the dean of the college.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

INFO 4970 - Information Science Seminar

3 hours Supervised individual or group work on current issues of modern technology and information science.

Prerequisite(s): Consent of instructor and chair of the department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

Interdisciplinary Studies in Consumer Insights

ICON 3800 - Consumer Psychology

3 hours Exploration of motivations influencing consumer purchase and use of products and services. A comprehensive theoretical and practical knowledge base is used to investigate various individual and environmental factors as they relate to the consumer purchase process and its outcomes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

ICON 4440 - Consumer Analytics and Data Visualization

3 hours Examination of various consumer research methodologies including descriptive and predictive analysis. Application of analytical techniques in developing effective business strategies using analytics tools and data visualization programs.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

ICON 4750 - Consumer Experience Design

3 hours This hands-on course integrates the use of software to equip students with the skills necessary for crafting compelling consumer experiences. Through hands-on training with tools like Adobe Photoshop and Illustrator, students learn to create visually engaging content that enhances user interaction across digital platforms. Students apply these concepts to real-world projects, using software applications to deliver visual designs that resonate with consumers and drive engagement.

Prerequisite(s): CMHT 3950; ICON 3800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

ICON 4880 - Integrated Retail Strategy

3 hours Provides a framework for Omnichannel retailing, covering the wide spectrum of retail channels with an emphasis on seamless customer experience while developing a competitive edge for the retailer.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

International Affairs

INTE 1000 - International Internship Experiences

1–6 hours Interdisciplinary course offering that provides students with greater cross-cultural knowledge and understanding through a real-world international experience prior to graduation. The experience, which may be an internship, service learning, research project or creative endeavor, is interdisciplinary in design. Moreover, the experience serves as a gateway to careers requiring global competencies by familiarizing students with various career opportunities.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 1500 - International Education Experiences

1–3 hours International Education Experiences (INTE 1500) is a special topics course that will align with a variety of international educational experiences. INTE 1500 intends to provide students with greater cross-cultural knowledge and to enhance students' global perspectives.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 2000 - International Internship Experiences

1–6 hours Interdisciplinary course offering that provides students with greater cross-cultural knowledge and understanding through a real-world international experience prior to graduation. The experience, which may be an internship, service learning, research project or creative endeavor, is interdisciplinary in design. Moreover, the experience serves as a gateway to careers requiring global competencies by familiarizing students with various career opportunities.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 2500 - International Education Experiences

1–3 hours Special topics course that aligns with a variety of international educational experiences. Provides students with greater cross-cultural knowledge and enhances students' global perspectives.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 3000 - International Internship Experiences

1–6 hours The International Internship Experiences course (INTE 3000) is designed as an inter-disciplinary course offering that provides students with greater cross-cultural knowledge and understanding through a real-world international experience prior to graduation. The experience may be an internship, service learning, research project or creative endeavor and will be interdisciplinary in design. Moreover, the experience will serve as a gateway to careers requiring global competencies by familiarizing students with various career opportunities.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 3500 - International Education Experiences

1–3 hours Special topics course that aligns with a variety of international educational experiences. Provides students with greater cross-cultural knowledge and enhances students' global perspectives.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 4000 - International Internship Experiences

1–6 hours Interdisciplinary course offering that provides students with greater cross-cultural knowledge and understanding through a real-world international experience prior to graduation. The experience, which may be an internship, service learning, research project or creative endeavor, is interdisciplinary in design. Moreover, the experience serves as a gateway to careers requiring global competencies by familiarizing students with various career opportunities.

May be repeated for credit as topics vary for a maximum of 6 hours.

INTE 4500 - International Education Experiences

1–3 hours Special topics course that aligns with a variety of international educational experiences. Provides students with greater cross-cultural knowledge and enhances students' global perspectives.

May be repeated for credit as topics vary for a maximum of 6 hours.

International Studies

INST 2100 - Introduction to International Studies

3 hours Exploration of the dynamic and interconnected world through interdisciplinary studies. Develops a comprehensive foundation for understanding the complexities of the global landscape, from climate change to human rights to international trade.

Core Category: Component Area Option B

INST 4800 - International Studies Internship

3 hours Students seek supervised work-related internships to any of the areas of concentration in the international studies major. The internship aims at the advancement of the student's professional field of study and career objectives.

Prerequisite(s): Consent of department.

May be repeated for credit; up to 6 hours of internship may count towards the major.

INST 4850 - International Studies Seminar

3 hours Topics vary and may cover any of the six areas of concentration of the major: international politics and diplomacy, international business and economics, international development, area studies, international security, and peace and human rights issues. Students explore issues that affect our world in the 21st century.

May be repeated for credit for a maximum of 6 hours.

INST 4851 - International Security

3 hours Examines the causes of war, the impact of the spread of nuclear weapons upon regional and world stability, transnational terrorism, and causes of world and regional instability.

Recommended: Senior status and international studies major with area of concentration in international politics and security.

INST 4852 - Critical Issues in Global Economics Senior Seminar

3 hours Explores contemporary global economic issues including the restrictions on trade, the relationships between exchange rates and the flows of goods, fiscal and monetary policy in open and closed economy, international debt crisis, foreign direct investment, economic regional integration, and the roles of international economic organizations.

Recommended: Senior status and international studies major with area of concentration in international business and economics.

INST 4853 - Global Development: Issues and Challenges

3 hours Explores competing perspectives for development and various factors which explain why some countries are more developed than others. Survey of global challenges such as environmental, foreign aid, gender empowerment, international migrants, refugees and Indigenous people, the role of culture and religion in development, and corruption and public sector reform.

Recommended: International studies majors whose area of concentration is international development and regional studies and senior status.

INST 4854 - Political Economy of the Middle East

3 hours Explores the political economy of the Middle East and the impact of globalization, religion, and political/historical events upon the region. Topics include the rise of the public sector, economic liberalization, and impact of international economic structures upon development in the Middle East.

INST 4855 - International Relations and Politics of the Middle East

3 hours Introduces students to international relations and politics of the Middle East, with focus on critical security issues. Surveys rise of the state system in the Middle East and crises of authority and identity. Examines Middle East regional relations and role of Middle East in international affairs.

INST 4856 - Human Trafficking

3 hours Presents a global interdisciplinary approach to histories of and contemporary issues around human trafficking.

INST 4857 - Human Security in the 21st Century

3 hours Structured around seven areas of human security: economic, political, food, environmental, health, community, and personal security with a focus on armed conflict, social and economic inequality, climate change and displacement. Covers cases primarily, though not exclusively, from Africa, Asia and Europe.

INST 4858 - Refugees: Histories and Contemporary Issues

3 hours Presents a global interdisciplinary approach to histories of and contemporary issues around refugees.

INST 4859 - Middle East Politics and Society through Film

3 hours Analyzes socio-cultural, economic and political dimensions of politics in selected countries in the Middle East. Encourages the development of cultural and political awareness of the region as well as critical analysis of the region's place in international affairs.

INST 4860 - Asian Youth: Cultures, Activism, Media

3 hours Explores social and political engagement of young people in Asian countries, including youth culture, and the use of digital media.

INST 4861 - Putin's Russia

3 hours Investigates Putin regime's political interests, economic miscalculations, and geopolitical concerns, to understand modern shifts in Russian foreign policy.

INST 4862 - Generation Algorithm: Youth, AI and the Future of Connection

3 hours Understand and shape the future of human connection in the age of generative AI by exploring how AI is transforming communication, creativity and identity.

INST 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

INST 4910 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

INST 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Italian

ITAL 1010 - Elementary Italian

(ITAL 1411)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 1020 - Elementary Italian

(ITAL 1412)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ITAL 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 1610 - Italian Influences in the United States of America

3 hours Explores the influences of Italian language, food, people and cultural phenomena in America.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 2040 - Intermediate Italian

(ITAL 2311)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): ITAL 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 2050 - Intermediate Italian

(ITAL 2312)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): ITAL 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 2900 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 2910 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 3020 - Italy From Fascism To The Present

3 hours Exploration and analysis of Italian history and society from the Fascist era to the present through literature, cinema, and historical documents.

Prerequisite(s): ITAL 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 3030 - Italian Food Culture

3 hours Focuses on the culture of food in Italian history, literature and cinema. In particular, it analyzes its historical, social and symbolic value from the Middle Ages to the contemporary Italian world-renowned "Slow Food" movement.

Prerequisite(s): ITAL 2050 or equivalent.

1 or 2 cooking workshops may be organized during the semester as an extracurricular activity in collaboration with the Department of Hospitality and Tourism Management in the College of Merchandising, Hospitality & Tourism and after consulting the Risk Management Service.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 3040 - Topics in Italian Culture

3 hours Readings in Italian culture with emphasis on conversational and written practice.

Prerequisite(s): ITAL 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 3050 - Contemporary Italian Culture Through Film

3 hours Study of different cultural topics relevant to life in contemporary Italy, using film as the primary source of authentic language for the development of listening and conversational skills.

Prerequisite(s): ITAL 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 3080 - Italian Language and Culture through Italian Operas

3 hours Introduction to Italian opera as a means of learning the language and appreciating the culture of Italy. Relations between culture and opera are explored.

Prerequisite(s): ITAL 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

ITAL 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Japanese

JAPN 1010 - Elementary Japanese

(JAPN 1411)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 1020 - Elementary Japanese

(JAPN 1412)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): JAPN 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 2040 - Intermediate Japanese

(JAPN 2311)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): JAPN 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 2050 - Intermediate Japanese

(JAPN 2312)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): JAPN 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 2900 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 2910 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3020 - Advanced Japanese I

3 hours Advanced listening, speaking, reading, writing and grammar. Topics include Japanese society, culture, history and intercultural communications.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3030 - Advanced Japanese II

3 hours Advanced listening, speaking, reading, writing and grammar. Topics include Japanese society, culture, history and intercultural communications.

Prerequisite(s): JAPN 3020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3040 - Topics in Japanese Culture

3 hours Focus on deepening students' understanding of Japanese culture and society today through a study of Japanese history, social dynamics, business practices and advanced readings from sources in contemporary and mainstream Japanese media.

Prerequisite(s): JAPN 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3042 - Japanese Society Today

3 hours Exploration of contemporary Japanese society through readings and discussions.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3044 - Adventure in Japanese Songs

3 hours Exploration of Japanese songs and lyrics through a variety of genres from historical to contemporary. Analysis of the significance of words in relationship to the rhythm of music.

Prerequisite(s): JAPN 2050 or the equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3046 - Japanese Cultural Expressions Through the Ages

3 hours Exploration of Japanese art and culture throughout the ages.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3048 - Japanese Food Culture

3 hours Students learn about the intricacies of Japanese food culture through a variety of reading materials and video clips.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3052 - Introduction to Japanese Literature

3 hours Introduction to influential works in the Japanese literary canon from the Nara period to the present, as well as their cultural and historical context.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3060 - Topics in Japanese Language

3 hours Focus on Japanese grammar and intensive practice to develop fluency in reading, writing and comprehension of modern Japanese beyond the intermediate level.

Prerequisite(s): JAPN 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3062 - Rapid Reading Skills for Japanese

3 hours Development of rapid reading techniques and skills to assist students in transition from intermediate to advanced reading level, with particular focus on authentic texts.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3064 - Japanese Grammar and Kanji

3 hours Enhancement of the knowledge of basic Japanese grammar rules and kanji expressions and improvement of Japanese communication skills.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3066 - Building Japanese Fluency and Listening Skills

3 hours Improvement of fluency and listening skills to aid in transition from intermediate to advanced Japanese. Promotion of critical thinking in discussions on issues in diversity, equity, and inclusion in Japan is enhanced with a drama series for students' fluency development.

Prerequisite(s): JAPN 2050 or the equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 3068 - Japanese Extensive Reading

3 hours Enhance reading proficiency and other skills through cultural materials.

Prerequisite(s): JAPN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4020 - Advanced Japanese III

3 hours Continuation of advanced listening, speaking, reading, writing and grammar. Topics may include Japanese arts, culture, history and politics.

Prerequisite(s): JAPN 3030 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4030 - Advanced Japanese IV

3 hours Continuation of advanced listening, speaking, reading, writing and grammar. Topics may include Japanese arts, culture, history and politics.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4040 - Advanced Topics in Japanese Culture

3 hours Study of Japanese cultural products and practices with an emphasis on the past associated with the present.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4042 - Japanese Ghost Stories

3 hours Examination of Japanese ghost stories and analysis of Japanese religious thoughts and values.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4044 - Lives of the Samurai

3 hours Examination of Samurai's lives and analysis of Japanese culture and society.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4046 - Dawn of Modern Japan

3 hours Examination of representative peoples in the 19th century and analysis of the era, society and culture in which Japan was modernized.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4048 - Travel Writings of the Edo Period

3 hours Study of the Japanese sense of beauty and humor through a survey of travel writings including haiku from the Edo Period.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4052 - Modern Japanese Literature

3 hours Japanese literature from the end of the nineteenth century to the present.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4080 - Business Japanese

3 hours Introduction to Japanese business culture and development of appropriate advanced language skills.

Prerequisite(s): 9 hours of advanced Japanese or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4150 - Foreign Language Instruction and Assessment

3 hours Study of foreign language curriculum, instruction and assessment for future and current teachers of Japanese. Designed for students in a teacher preparation program.

Prerequisite(s): 6 hours of advanced Japanese or consent of department.

Same as FREN 4150, GERM 4150 and SPAN 4150.

May not be counted toward a minor in Japanese. Students who use JAPN 4150 to count toward the major must also take 9 hours of other JAPN 4000-level courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

JAPN 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Jazz Studies

MUJS 1013 - Keyboard Skills III (for Jazz Studies Majors)

1 hour Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for jazz studies major. Includes harmonization of jazz lead sheets using 2 and 3 note voicings.

Recommended: MUAG 1012 with grade of C or better. Concurrent enrollment in MUJS 2400 and MUJS 2410.

Meets with MUJS 5363.

For jazz studies majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1014 - Keyboard Skills IV (for Jazz Studies Majors)

1 hour Functional keyboard skills combined with the application of music theory principles at the piano (progressions, sight reading, harmonization and transposition) for jazz studies major. Includes harmonization of jazz lead sheets using 4 and 5 note two handed voicings as well as rootless voicings and simple walking bass patterns.

Recommended: MUJS 1013, MUJS 2400 and MUJS 2410 with grade of C or better. Concurrent enrollment in MUJS 2500 and MUJS 2510.

Meets with MUJS 5363.

For jazz studies majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1131 - Jazz Performance Fundamentals I

2 hours (0;2) Study of the basics of jazz performance. Topics covered include instrumental technique, style, interpretation and improvisation.

Prerequisite(s): Audition and/or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1132 - Jazz Performance Fundamentals II

2 hours (0;2) Continuation of Jazz Performance Fundamentals I.

Prerequisite(s): MUJS 1131.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1360 - Jazz Fundamentals

2 hours (2;0) Introduction to jazz harmony and scales. Drill in ear training and keyboard. Required for freshman majors in jazz studies.

Prerequisite(s): MUTH 1400 and MUTH 1410 (may be taken concurrently) (non-music majors by consent of college).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1361 - Jazz Aural Fundamentals

1 hour (0;2) Drill in ear-training of the melodic, harmonic and rhythmic materials that are idiomatic to jazz. Includes the singing of jazz chords and scales and the singing, dictation and transcription of jazz melodies, rhythms and chord progressions.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1370 - Jazz Fundamentals

2 hours (2;0) Continuation of MUJS 1360.

Prerequisite(s): MUJS 1360 and MUJS 1361 with grade of A or B.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1371 - Jazz Keyboard Fundamentals

1 hour (0;2) Basic jazz keyboard skills. Keyboard realization of jazz harmony with typical idiomatic voicings.

Prerequisite(s): MUJS 1360 with grade of A or B, or consent of college.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 1470 - Introduction to Jazz Recordings

3 hours (3;0) Introductory overview of key artists and recordings in the history of jazz, including their stylistic, historical and social context.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2360 - Jazz Improvisation I

2 hours (2;0) Basic materials and practices for improvising in the jazz idiom, with an emphasis on pre-bebop era harmony, melodic language, and rhythmic concepts.

Prerequisite(s): MUJS 1131 and MUJS 1132. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2370 - Jazz Improvisation II

2 hours (2;0) Basic materials and practices for improvising in the jazz idiom, with an emphasis on bebop era harmony, melodic language, and rhythmic concepts.

Prerequisite(s): Completion of MUJS 2360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2400 - Theory III (for Jazz Studies Majors)

2 hours Functional and expressive chromaticism, modal mixture, augmented 6th chords, and other advanced harmonic concepts with application to jazz, popular, and classical music. Advanced rhythmic analysis and training. Study of idiomatic jazz forms and common harmonic progressions.

Recommended: MUTH 1400, MUTH 1410, MUTH 1500, MUTH 1510 with grade of C or better and concurrent enrollment in MUJS 2410.

Meets with MUJS 5362.

Enrollment restricted to jazz studies majors.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2410 - Aural Skills III (for Jazz Studies Majors)

1 hour Reinforcement of theoretical concepts presented in MUJS 2400 via singing, ear training, and other experiences.

Recommended: MUTH 1400, MUTH 1410, MUTH 1500, MUTH 1510 with grade of C or better and concurrent enrollment in MUTH 2400.

Meets with MUJS 5361.

For jazz studies majors only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2500 - Theory IV (for Jazz Studies Majors)

2 hours Chromatic modulation and other advanced harmonic concepts in jazz, popular and classical music. Exploration of post-tonal concepts. Advanced rhythmic training and polyrhythms. Analysis of larger formal structures and other preparation for advanced coursework in jazz arranging, improvisation, etc.

Recommended: MUJS 2400 and MUJS 2410 with grade C or better and concurrent enrollment in MUJS 2510.

For jazz studies majors only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2510 - Aural Skills IV (for Jazz Studies Majors)

1 hour Reinforcement of theoretical concepts presented in MUJS 2500 via singing, ear training, and other experiences.

Recommended: MUJS 2400 and MUJS 2410 with grade of C or better and concurrent enrollment in MUJS 2500.

For jazz studies majors only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3070 - History of Jazz

3 hours Chronological survey of the major styles and artists of jazz, from African acculturation in the New World to the present.

Recommended: MUET 3060 with grade of C or better.

Meets with MUJS 5430.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 3120 - Vocal Jazz Techniques

1 hour (2;0) Practical study of the basic vocal, interpretative, and microphone techniques for the performance of vocal jazz.

Prerequisite(s): MUTH 1500, MUTH 1510.

May be repeated for credit, contingent on a minimum grade of B.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 3360 - Advanced Jazz Improvisation I

3 hours (3;0) Performances of improvised solos. Includes standards and original works. Improvisation by memory and reading chord symbols.

Prerequisite(s): MUJS 2370 with grade of C or higher. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3370 - Advanced Jazz Improvisation II

3 hours (3;0) Continuation of MUJS 3360.

Prerequisite(s): MUJS 3360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3400 - Understanding and Appreciating Jazz in U.S. and World History and Culture

3 hours Study of jazz music in the context of U.S. and world history and culture. Listening for musical style. Study of the role of jazz music in expressing and mediating differences in racial, gender, and national identity.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 3470 - Jazz Lecture Series

1 hour (1;0) Contemporary jazz composition, performances and presentations by nationally recognized composers, arrangers and performers.

Open to majors in other fields by consent of college. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3610 - Jazz Arranging

3 hours Jazz harmony, melody and rhythm applied to modern instrumentation; arrangements written and played.

Prerequisite(s): MUTH 1500 and MUTH 1510. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3620 - Jazz Arranging

3 hours Continuation of MUJS 3610.

Prerequisite(s): MUJS 3610. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3800 - Conducting Jazz Ensembles

2 hours Fundamental concepts of conducting jazz ensembles. Basic conducting principles, rehearsal techniques, repertoire and programming considerations, standard notation and instrumentation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3900 - Vocal Pedagogy for Non-Classical Styles

2 hours (1;2) Introduction to the science and practice of healthy singing in non-classical music styles, emphasizing jazz, but including other popular styles as well. Includes an overview of the basic anatomy and physiology of the body as it relates to singing, analysis of various professional vocal artists' approaches (successful and unsuccessful), understanding a healthy approach to achieving unification of vocal registers while maintaining speech-like lyric delivery, and other topics relevant to both singing and teaching singing in non-classical music styles.

Prerequisite(s): MUJS 3360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 3920 - Songwriting

2 hours (2;0) Outlines various techniques and methods for songwriting, and also serves as a master class environment for the writers in the class. Topics include melodic and harmonic construction, lyric writing, the setting of original material, self-editing, and songwriter analysis.

Prerequisite(s): MUJS 3360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 4120 - Vocal Jazz Styles

2 hours (1;1) Advanced vocal and recording techniques for the jazz studies major with a vocal concentration. Performing and recording with instrumental groups.

Prerequisite(s): MUJS 3120 (two credit hours), completion of MUJS 2370 with C or better.

Corequisite(s): Concurrent enrollment in MULB 1820, Jazz Singers, required.

Recommended: Completion of Upper Division Exam.

May be repeated for credit, contingent on a minimum grade of B.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 4610 - Advanced Jazz Arranging

3 hours (2;4) Analysis and composition of music for the modern jazz orchestra.

Prerequisite(s): MUJS 3620 and MUJS 2370 with grade of C or better.

Recommended: Concurrent enrollment in MULB 1808 or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 4620 - Advanced Jazz Arranging

3 hours (2;4) Continuation of MUJS 4610.

Prerequisite(s): MUJS 3360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 4630 - Vocal Jazz Arranging

3 hours Group and individual instruction in jazz harmony, rhythm and melody, applied to contemporary vocal ensemble. Arrangements written and performed.

Prerequisite(s): MUJS 3360. Jazz majors only, or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUJS 4720 - Jazz Senior Recital Capstone

3 hours (1;0;2) Public performance of music on the major instrument by each student completing undergraduate studies in jazz studies. The culmination of at least four years of work in academic and applied music; it represents the academic, musical and artistic growth the student has experienced throughout the undergraduate career. The senior recital is typically given in the last semester of undergraduate study.

Prerequisite(s): A senior recital is required of all candidates for the Bachelor of Music with a major in jazz studies. In order to be eligible, candidates must successfully complete either the Jazz

Studies Concentration Exam (for Performance Emphasis) or the Jazz Arranging Proficiency Exam (for the Arranging Emphasis). Jazz studies drum set performance majors must pass all required drum set and percussion proficiency barriers before scheduling a jazz studies senior recital. Successful completion of all College of Music Proficiency exams, including the Theory Proficiency Exam (TPE), Upper Division Exam (UDE), and Piano Proficiency Exam.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 4900 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 4910 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUJS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Journalism

JOUR 1210 - Mass Communication and Society

(COMM 1307)

3 hours Principles of mass communication including historical, economic, social, ethical and legal factors influencing the operation and content of the mass media. Impact of new technology in changing the media. A survey of mass communication areas (newspapers, magazines, advertising, public relations, television, wire services, Internet and networks), and careers they offer.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 2250 - Media Literacy

(COMM 2300)

3 hours This course involves criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media. This course also delves into the production of media, the methods consumers use to interpret media content, and the impact of different levels of individual media literacy on civic and socioeconomic, and communication issues.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 2300 - Principles of News

(COMM 2302)

3 hours Understanding the fundamentals of news and news gathering through lectures, discussions, group projects, hands-on activities, guest speakers and multimedia to educate students on the skills, methods and practices of the twenty-first century journalist. Introduction to the business of journalism, audience information needs, reader/viewer engagement and news judgment. Students also learn news writing and reporting principles used in print, photojournalism, broadcast and digital/online journalism.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 2310 - Introduction to Media Writing

(COMM 2311)

3 hours (3;2) Fundamentals of writing, reporting and information gathering for a variety of journalism professions including advertising, newspapers, public relations, broadcast and web.

Prerequisite(s): Journalism major or minor status; ENGL 1310 and ENGL 1320; consent of school.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 2400 - Fundamentals of Public Relations Practices

3 hours Broad overview of public relations practices covering the history, mechanism and processes of public relations in various workplace settings and types of relations. Emphasis is on the four-step public relations process, strategic planning, writing formats and real-world cases. Implications of technological changes, globalization as well as unethical and illegal practices are discussed.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 3200 - Mass Communication Research Methods

3 hours Introduction to quantitative and qualitative methods used to study audiences, contents and effects of mass media, especially focusing on advertising and public relations communication and utilizing social science research skills and statistical analysis. Approaches include content analysis, survey research, focus groups and other experimental studies.

Prerequisite(s): Journalism major status: MATH 1680, JOUR 1210, JOUR 2310. Journalism minor status: JOUR 2300 and MATH 1680. Or consent of Mayborn school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3220 - Professional Practice Studies

1 hour Rotating professional training in news, advertising and public relations offered in a flexible format. May repeat for credit as topics vary for up to 3 hours.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary for a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 3250 - Game Design for Journalism

3 hours Fundamentals of game design are taught demonstrating how to integrate games into digital storytelling on behalf of media communication disciplines such as journalism, advertising and public relations. Game mechanics are explored and evaluated to engage audiences with news events, social issues, or on behalf of a client or product. Students design interactions that seek to open dialogue with audiences and explore issues of balance and perspective. Following the design studio model, students organize into teams and apply the design process, rapid content generation, iteration and prototyping, with an emphasis on designs that enhance audience engagement.

Prerequisite(s): JOUR majors that have successfully completed JOUR 1210, JOUR 2310, and either ADVG 1100 or JOUR 3300. Non-Journalism majors must complete ENGL 3225 and either ADVG 1100 or JOUR 3300; or consent of Mayborn School.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 3260 - Web Design for Journalism

3 hours Course is an overview of online design and an introduction to coding for designers, with an emphasis on thinking mobile first. A case study approach will be used to evaluate the design and production of web applications for journalism, advertising and public relations. After the case studies section, students will incorporate best practices for user experience (UX) and plan and produce an interactive design of a web application for digital storytelling (this can be on behalf of a newsworthy topic, for a client or a campaign). Students will work on front-end coding skills and investigate the affordances of various languages and libraries for web design.

Prerequisite(s): Students must have successfully completed JOUR 1210, JOUR 2310 and either ADVG 1100 or JOUR 3300; or consent of Mayborn school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 3270 - Media Entrepreneurship and Innovation

3 hours Course provides an overview of the current and future state of media and what it takes to become an entrepreneur. Students will learn how to start a business in media, find customers and pitch a business idea.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 3300 - Introduction to Visual Communication for News

3 hours Introduction to basic video photography and editing, still photography and editing, and audio recording and editing for use in news and a digital multi-media environment. Instruction in theory and practice of visual and audio storytelling for news programming. Instruction may include the operation of digital video cameras, digital still cameras, voice recorders and video and audio editing software and hardware including non-linear editing systems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 3310 - Feature Writing

3 hours

Analysis of newspaper and magazine feature material, from human interest stories to magazine articles; clinical course to develop writing skills, freelance abilities and interests of journalism students.

Prerequisite(s): Journalism major status and successfully completed JOUR 1210, JOUR 2310, either JOUR 3321 and JOUR 3322 or JOUR 3323 only; consent of school.

JOUR minor status and successfully completed JOUR 2310, either JOUR 3321 and JOUR 3322 or JOUR 3323 only; or consent of Mayborn school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3315 - Video News Research and Reporting

3 hours Focuses on research and use of data and open records when reporting for video and electronic formats, along with writing, video shooting and editing to produce news packages. Also includes basics of how newsrooms use research and analytics when making business decisions and how that information can influence story choice (as well as a discussion about the ethics of this issue).

Prerequisite(s): Journalism majors: JOUR 1210, JOUR 2310 and JOUR 3300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3321 - News Reporting and Writing

3 hours (3;4)

Continued practice in news gathering and writing to develop news judgment, build writing skills and handle complex news stories. Includes regular campus beat and special assignment reporting. Also examines the editor's role in news copy, with emphasis on writing quality, copy editing, AP style, headline and caption writing, and basic graphics.

Prerequisite(s): Journalism major status: JOUR 1210 and JOUR 2310.

Journalism minor status: JOUR 2310; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3322 - Copyediting

3 hours

Course introduces students to the theory and practice of editing text for print and digital media, with an emphasis on news stories. The course will focus on fundamental grammar, punctuation and journalistic style. The purpose of this course is to assist students in becoming critical consumers of news and develop skills that can help them write for news audiences on online platforms.

Prerequisite(s): Journalism major status: JOUR 1210 and JOUR 2310.

Journalism minor status: JOUR 2310; consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 3323 - News Writing for Broadcast and Web

3 hours Theory and practice of writing and editing for radio, television and web-based news. Topics include news judgment, script formats and style for radio, TV and web news. Regular writing assignments, lectures and critiques. Possible hands-on writing for student media including student web sites.

Prerequisite(s): JOUR 2310 and JOUR 3300; or consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3330 - Mobile Journalism

3 hours Course acts as a digital-only newsroom, utilizing photos, video, audio and text to produce content for an audience. Focus will be on mobile journalism and utilizing the smartphone as a "digital hub," used for creating and consuming content. Fast-paced course provides principles and practice for students to produce content in the digital realm. Includes focus on the role and impact of digital-first thinking and technology on journalists' news gathering and distribution. Also addresses fundamentals of social media, curation and new business models.

Prerequisite(s): JOUR 2310.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 3340 - Digital Media for Journalists

3 hours Fast-paced course providing students principles and practice in using digital tools to report, write, blog and produce content in multiple platforms: print, online, social, broadcast and mobile. Includes focus on role and impact of digital-first thinking and technology on journalist's news gathering and distribution. Also addresses fundamentals of social media, curation, web site analytics and new business models. Content for class shared with NTDaily, NTDaily.com and Denton Community Television.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, and either (JOUR 3321 and JOUR 3322) or JOUR 3323 only.

Journalism minor status: JOUR 2310, JOUR 3300, (JOUR 3321 and JOUR 3322) or JOUR 3323 only; consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 3343 - Visual News Storytelling

3 hours Focuses on video storytelling for television, web and emerging platforms. Reporting, shooting, editing, and writing short stories. Explores different styles of visual journalism, including natural sound storytelling and short-format documentary. Extensive hands-on experience with camera and editing equipment. Instruction on basic graphic and text creation. Students produce multiple stories, content for student media, Television and webcasts.

Prerequisite(s): Journalism major or minor status: JOUR 1210, JOUR 2310, JOUR 3300. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3401 - Public Relations Principles for Non-majors

3 hours Exploration of the public relations covering practices, law, ethics and technology. Considers a variety of organizational structures in a global environment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 3410 - Public Relations for Non-Profits

3 hours Designed for both majors and non-majors. Examines the philosophical and theoretical foundations of public relations and volunteerism in the United States. Students learn to apply these theories to public relations campaigns in the non-profit sector. Strategic communication strategies relating to both internal and external publics are explored, including the unique legal and ethical issues impacting non-profits.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3420 - Public Relations Writing

3 hours Writing-intensive course that focuses on professional-level writing skills needed by new practitioners of public relations. Components include news releases, pitch letters, media advisories, feature writing, Web writing, business formats, message design concepts and broadcast forms, as well as communication theory, ethics and law. Editing, grammar and AP style are discussed.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, ADVG 1100 , JOUR 3322 and JOUR 2400; consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3430 - Crisis Communication

3 hours The course focuses on professional crisis communication including research, planning, writing, communication, evaluation and analysis skills. Students gain an understanding of appropriate responses/work products for nonprofit, corporate, presidential, governmental organization, social media and media reporting communications. Students use critical thinking and public relations writing skills, working under pressure to convey targeted messages.

Prerequisite(s): Students must have at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 3450 - Public Relations Practices for Business

3 hours Provides a comprehensive overview of corporate communication and advanced public relations practices for business organizations. Areas of focus include preparation of planning and strategy documents, executive communications, organizational storytelling, media relations, investor relations, customer complaints, issue management, public affairs, communication and presentation of data, and examination of the history of public relations from a business perspective. Class conducted as a business meeting with real-world public relations assignments.

Prerequisite(s): Students must have 45-plus credit hours to enroll.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 3700 - Fundamentals of Photojournalism

3 hours (3;3) Instruction in fundamental photojournalism skills and methods including image production and digital post-production, candid documentary observation, visual sequencing, photography critique, visual news judgement, photojournalism writing, and ethical and legal limits concerning photographic coverage and publication. Covers a variety of photographic subjects outside of class. Also prepare students to be effective problem solvers for situations that may arise during the scope of their reporting. An overview of the history of photojournalism, technological advances, ever-changing business practices and opportunities facing the profession are provided.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310 and JOUR 3300.

Journalism minor status: JOUR 2310 and JOUR 3300. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4100 - Supervising School Media

3 hours For journalism teachers who plan to supervise secondary school newspapers, magazines, yearbooks, new media and radio or television outlets. Emphasis on teaching basic journalism courses, staff organization, editorial supervision, advertising sales and media business management.

Prerequisite(s): Journalism major: JOUR 1210, JOUR 2310, ADVG 1100 , JOUR 3300, JOUR 3321 and JOUR 3322; consent of school.

Satisfies a requirement for teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4200 - Video for Strategic Communication

3 hours Shooting/editing and writing skills to create videos for the purposes of public relations and strategic communication. Best practices to reach target audiences and best practices for communicating information to the public and/or stakeholders.

Prerequisite(s): JOUR 1210, JOUR 2310, JOUR 3300, (JOUR 3323 or JOUR 3420).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4210 - Topics in Journalism and Mass Media

3 hours Rotating topics in both news and strategic communications.

Prerequisite(s): Completion of 45 hours of course work.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4212 - Science, Health and Environmental Reporting

3 hours Emphasizes the creation of compelling journalism that explains scientific research and policy to a general audience.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4215 - Media Performance for News and Public Relations

3 hours Students are introduced to the methods of professional media performance for live on-camera work delivering news, interviewing subjects and conducting public relations event/press conferences.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4220 - Business Journalism

3 hours Course focuses on basic concepts of writing about publicly traded and private companies as well as how financial markets affect every aspect of news coverage. Students research CEO salaries, read financial statements, understand the stock market, write basic earnings report stories and research publicly traded and private companies. Students also learn fundamentals of personal finance including understanding loans, renting vs. owning property, credit scores and other money management issues.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4230 - Arts and Culture Journalism

3 hours This course focuses on critiquing for a variety of arts and culture. Examples might include the performing arts such as music (e.g., classical, country, hip hop), theater, dance or fine arts such as film/movies, art shows, photography, food, books, architecture or other areas. The section number will distinguish the area of focus for each class.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4233 - Podcasting for Journalists

3 hours Theory and practice of creating journalistic podcasts. Covers building an audience, monetizing content, and ethical and legal concerns of podcasters.

Prerequisite(s): JOUR 3300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4235 - Food Journalism

3 hours Explores the practice of writing about food across all platforms and formats, including reporting, criticism, feature writing and explanatory journalism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 4240 - Comparative International Media Systems

3 hours Study of mass media throughout the world with special attention to how media institutions contribute to building democracy. Comparison of print and broadcast news systems, the sources and flow of international news and the challenges of globalism.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4250 - Race, Gender and the Media: A Methods Approach

3 hours Students critically analyze media portrayals of race, gender, sexuality and class and learn to use scholarly research methods to evaluate them. Students examine historical and modern patterns in news media, advertising, television, film, video gaming, popular music, and other mass media. Discussion and writing are major components to this class.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4270 - Strategic Social Media

3 hours In a collaborative atmosphere, students explore strategic applications of a variety of social media platforms used for strategic communications and journalism. Students are challenged to bring new ideas to the classroom while adapting social media tools to traditional communications planning and measurement methods. Students with specific expertise/interests are encouraged to present to class.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 4280 - Media Management

3 hours Course introduces media management issues including leadership, management, marketing and budget. Students gain analytical tools to help understand the current state of media and to help develop new models for the future. Students read, discuss, listen, observe, analyze and make recommendations about how media has changed, what's going on now and how it can be changed for the future. Students will also meet and discuss current issues and trends with media executives.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4290 - Media Innovation Lab

3 hours Students develop, build and test their ideas at the intersection of intre/entrepreneurship, technology and emerging media. Students will launch a new media venture or exercise intrapreneurial skills and build solutions for an established media organization.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3270 and either ADVG 1100 or JOUR 3300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4300 - Covering Crisis, Trauma and Recovery

3 hours Techniques for covering and coping with crisis, trauma and recovery. Examine news coverage and media texts involving crisis and trauma from basic news gathering and crisis communication perspectives. Generate news drills, blogs and stories from participation in virtual emergency preparedness training.

Prerequisite(s): Students must be journalism majors or minors and have successfully completed JOUR 2310.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4321 - Opinion Writing

3 hours

Writing for the editorial page: editorials and columns. Writing critical reviews of the performing arts, visual arts and popular culture. Emphasis on editorials, arts reviews and personal columns.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, and either (JOUR 3321 and JOUR 3322) or JOUR 3323 only.

Journalism minor status: JOUR 2310, JOUR 3300, and either (JOUR 3321 and JOUR 3322) or JOUR 3323 only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web

3 hours Advanced news writing, reporting and storytelling for television, web and radio. Includes information gathering, writing, interviewing, working a news beat, developing sources and ideas, editing copy, and learning specific formats. Hands-on experience writing, producing and editing news pieces and webcasts for student and area media outlets and web sites.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3315, JOUR 3323. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4350 - Sports Journalism

3 hours

Teaches sports reporting, writing, photojournalism and performance for multi-platform use, including web, broadcast and print. Studies column writing, reporting on competition, ethics in sports journalism, sports entertainment, sports business and the impact of sports in society.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, and either (JOUR 3321 and JOUR 3322) or JOUR 3323 only.

Journalism minor status: JOUR 2310, JOUR 3300, and either (JOUR 3321 and JOUR 3322) or JOUR 3323. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 4353 - Audio and Video Long Form Storytelling

3 hours

Focuses on journalistic long-form audio/video storytelling. Includes brainstorming sessions, critiques, audio/video screenings and in-class work on projects.

Prerequisite(s): JOUR major status: JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3343 and JOUR 3315.

JOUR minor status: JOUR 1210, JOUR 2310, and JOUR 3300

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4355 - Sport Media Relations

3 hours Course explores the purpose, processes and careers in sport media relations including history, media convergence, economics, budgets, operations, law and ethics of sport media communication. Course will survey sport media careers and provide a better understanding of sport media career opportunities.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, either ADVG 1100 or JOUR 3300 and either JOUR 3321 or JOUR 3322 or JOUR 3323. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4360 - Audio and Video Sports Journalism

3 hours Shooting, writing, editing, researching, and reporting video and web-based sports content for journalistic outlets. Includes an overview of the business of sports journalism, is crossover with public relations, and the ethics of navigating the two.

Prerequisite(s): JOUR Majors: Students must have successfully completed JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3323 and JOUR 3343.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 4410 - Reporting of Public Affairs

3 hours

Police, court, political and governmental news with typical practical news assignments assigned to professional reporters; background and practice in writing enterprise and investigative stories, including long-form non-fiction narrative writing. Focus on the role of the journalist, the role of the government and the Freedom of Information Act and open government acts. Students cover meetings and police, some at night and possibly on weekends.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3321 and JOUR 3322 or JOUR 3323.

JOUR minor status: JOUR 2310, JOUR 3300, JOUR 3321 and JOUR 3322 or JOUR 3323. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4440 - Public Relations Case Studies

3 hours Applications of public relations principles to cases and problems involving various stakeholders. Emphasis on strategic planning and execution, crisis management, and assessment of social media strategies and techniques. Original case analyses and presentations.

Prerequisite(s): Journalism major or minor status: JOUR 2310, JOUR 2400, and JOUR 3322. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 4460 - Public Relations Communication

3 hours Advanced PR writing, planning and media relations, including writing strategic communications plans as well as writing, editing and producing a wide range of public relations communications materials for traditional and new media. Students work with actual clients individually and in groups to produce a PR campaign and professional portfolio.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3200, ADVG 1100 , JOUR 3322, JOUR 2400 and JOUR 3420.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4480 - Public Relations Campaigns

3 hours Provides classroom situation where students work in teams to research, plan, create, execute and evaluate a multimedia public relations campaign for a designated client. Students use their accumulated knowledge from their major courses.

Prerequisite(s): Journalism majors: JOUR 1210, JOUR 2310, JOUR 3322, and JOUR 3420.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4520 - Advertising and Public Relations Study Abroad

3 hours Advertising and public relations campaigns are similar in the U.S. and abroad in that they are the culmination of extensive, systematic preparation and planning. Introduces students to issues and trends involved with international advertising and public relations. Studying abroad provides an educational opportunity and life experience. In addition, students are immersed in international advertising and public relations through field trips to global advertising/public relations agencies, readings/resources, guest speakers/presentations, journal writing, ad collection/analysis, and class discussion.

Prerequisite(s): Application through Study Abroad office required.

May be repeated for credit up to a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Summer Only

JOUR 4530 - News Study Abroad

3 hours Explores international media systems, including the press, magazines, broadcasting and online media. Instruction includes lectures, discussions, readings, presentations, field trips, guest speakers and blogging. Students gain a firm grasp of the international media systems and the differences and similarities to the United States media. Concentration is on news media, but entertainment media and sports media are also discussed.

Prerequisite(s): Application through Study Abroad office required.

May be repeated for credit as topics vary up to a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Summer Only

JOUR 4620 - Mass Communication Law and Ethics

3 hours

Examination of law and ethics used by working journalists. Law topics include First Amendment, libel, privacy, access to information among other topics. Also examines critical ethical challenges and the ethical decision-making process in today's changing media.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, and (JOUR 3321 and JOUR 3322) or JOUR 3323 or ADVG 1100.

Journalism minor status: JOUR 2310, JOUR 3300, and (JOUR 3321 and JOUR 3322) or JOUR 3323 or ADVG 1100. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

JOUR 4720 - Multimedia Storytelling for News

3 hours (3;3–6)

Course prepares students for high-level, long-form visual storytelling using still and video photography. Advanced photojournalism and video documentary techniques are employed while gathering sound, shooting and editing video and producing narrative multimedia stories. Course addresses advanced journalism practices including versatility in reporting, ethical decision-making, accuracy, writing proficiency and meeting deadlines.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3700 and either (JOUR 3321 or JOUR 3323) or JOUR 3323 only.

Journalism minor status: JOUR 2310, JOUR 3300, JOUR 3700 and either (JOUR 3321 or JOUR 3323) or JOUR 3323 only. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

JOUR 4730 - Advanced Photojournalism Portfolio

3 hours (3;3)

Guides students through the production of a cumulative online portfolio of their best photojournalism which may feature student photography and video created both before and during the course. Topical discussions include advanced image post-production techniques, digital asset management, online portfolio content management, and field and studio lighting techniques. Course explores various career paths and professional and business practice in photography and photo editing in both freelance and staff contests. Students produce visual projects and critically analyze the works of others from practical, aesthetic, ethical, legal and cultural perspectives.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3700 and either (JOUR 3321 and JOUR 3322)or JOUR 3323 only.

JOUR minor status: JOUR 2310, JOUR 3300, JOUR 3700 and either (JOUR 3321 and JOUR 3322) or JOUR 3323 only. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4800 - Professional Internship

1–3 hours Practical experience through employment under the supervision of department chair and professional at the work site. Student must submit bi-weekly reports, work samples and evaluation report at the end of internship; professional supervisor must submit mid-term and final evaluations. Internship and total work and credit hours to be completed must be arranged in advance of enrollment by application to the school. For each hour of credit, student must work a minimum of 100 hours.

Prerequisite(s): Internships are intended for Journalism Majors to take in their final year in the program. Students must complete specific prerequisites for their chosen professional concentration in Journalism before they can be granted permission to enroll. Students wanting to request course credit for a professional internship must complete the Departmental Request and Site Approval Form before they can be enrolled. See Journalism.unt.edu for more details, information and the request form.

May be repeated for credit; however, no more than 3 hours of total credit for JOUR 4800 and JOUR 4805 or JOUR 4810 may be applied to the journalism degree requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 4805 - Agency PR Practicum

1–3 hours AGENZ PR is a student-led public relations agency at University of North Texas at Frisco providing intense professional experience. It's comprised of selected public relations students from the Mayborn School of Journalism. AGENZ's focus is on diverse, digital, data-driven public relations that allow clients to reach Gen Zs with innovative communications. For each hour of credit, student must work a minimum of 100 hours.

Prerequisite(s): Journalism major status and have successfully completed JOUR 4460. By application only for instructor-nominated students who have successfully completed JOUR 3410, students in other senior Journalism concentrations or Advertising majors. Consent of school.

May be repeated for credit; however, no more than 3 hours of total credit for JOUR 4800 and JOUR 4805 may be applied to the journalism degree requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered:

JOUR 4810 - News or Sports Practicum

1–3 hours Supervised, intensive practical experience for journalism students to cover news or sports events on a daily basis. Includes interviewing, writing, reporting, shooting, editing reports for the *North Texas Daily*, NTDaily.com, NTDaily TV, or other appropriate web, broadcast or print venue approved by supervising journalism faculty. Requires a minimum of 100 hours of work for each hour of credit.

Prerequisite(s): Journalism major status: Passing score on GSP (grammar, spelling & punctuation) exam and successfully completed JOUR 1210, JOUR 2310, JOUR 3300, JOUR 3322 and either JOUR 3321 or JOUR 3323. Consent of school.

May be repeated for credit; however, no more than 3 hours total credit for JOUR 4800 or JOUR 4810 may be applied to the journalism degree requirements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered:

JOUR 4820 - History of American Media

3 hours Main trends and economic, social, political and technological factors and people that produced the institutions and traditions of the American mass media; emphasis on the changing roles of media and the impact of new communications technologies in the 21st century.

Prerequisite(s): Completion of at least 45 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

JOUR 4850 - Magazine Production

3 hours

Study of American magazines; production sequence of a publication, composition and printing methods, layout problems, writing to fit, cost-quality factors, rewrite, copy reading, styling, writing, titles, blurbs, captions and fitting galleys into layouts.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300 and either JOUR 3321, JOUR 3322 or JOUR 3323.

JOUR minor status: JOUR 2310, JOUR 3300 and either JOUR 3321, JOUR 3322 or JOUR 3323. Consent of school.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)

JOUR 4900 - Special Problems

1–3 hours Special Problems in Journalism.

Prerequisite(s): Consent of school.

May be repeated for credit as topics vary for a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 4910 - Special Problems

1–3 hours Special problems in Journalism.

Prerequisite(s): Consent of school.

May be repeated for credit as topics vary for a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

JOUR 4999 - News Capstone

3 hours (1;2) Culmination of the entire college learning experience by integrating concepts and skills of journalism learned in the classroom with real-life experiences of a working newsroom. Students learn and practice online, print, broadcast and photo journalism together in a newsroom setting. Capstone experience course required of all journalism majors with concentrations in digital/print, broadcast and photojournalism.

Prerequisite(s): Journalism major status: JOUR 1210, JOUR 2310, JOUR 3300; either (JOUR 3321 and JOUR 3322) or JOUR 3323; and one of the following: JOUR 3310, JOUR 4321, JOUR 3700 or JOUR 4323.

Should be taken during final 30 hours of study.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

Kinesiology

KINE 2000 - History and Philosophy of Sport and Physical Activity in the United States

3 hours Study of the historical foundations and philosophical questions related to the development of sport and physical activity programs in the United States. Investigation of the forces, controversies and leaders affecting sport and physical activity development as an integral part of current society.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2010 - Fundamentals of Strength and Conditioning

3 hours (2;1) Practical aspects of development of muscular strength and endurance, cardiorespiratory endurance and flexibility including: proper strength and conditioning exercise techniques, safety and basic exercise programming.

Recommended: PHED 1000, KINE 2030, KINE 2050 and KINE 3080 with a minimum average GPA of a 3.0 across the four courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2030 - Introduction to Kinesiology

3 hours Survey of the foundations underlying the scientific basis of kinesiology. Units include curricula, historical, philosophical, sociological, psychological, physiological, biomechanical, pedagogical and motor behavioral components essential to the study of kinesiology. Students are introduced to the skills and knowledge required to become a successful practitioner, researcher or teacher in the psychomotor domain. Students are expected to complete this course prior to enrolling in kinesiology core courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2050 - Sociology of Sport

3 hours Study of social behavior in sport with particular emphasis on its relationship to the cultural perspectives of socialization, minorities, economics, politics and current issues.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2051 - Honors Sociology of Sport

3 hours A study of social behavior in sport with particular emphasis on fundamental sociological concepts and critical thinking related to studying sport as sociocultural phenomena.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2105 - Human Anatomy and Physiology for the movement sciences

3 hours Applied anatomy and physiology of the human body with an emphasis on the muscular-skeletal and cardio-respiratory systems and related physiology. Students who successfully complete this course will have a foundational knowledge of the primary systems involved in human movement. The emphasis is on practical application and implications for human movement.

Prerequisite(s): Major in kinesiology or health behavior and fitness, or minor in kinesiology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2220 - Coaching Volleyball

3 hours Coaching techniques of skills and strategies.

Prerequisite(s): PHED 1790 or PHED 1791 with a minimum grade of B or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2230 - Coaching Football

3 hours Coaching techniques of skills and strategies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2240 - Coaching Soccer

3 hours A study of coaching strategies, skills and techniques for soccer that includes organization and administration of a soccer program in the public schools. Students participate in a variety of activities that include classroom lecture, labs and field work.

Prerequisite(s): Prior soccer experience in league play, high school or middle school or PHED 1740 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2250 - Coaching of Track and Field

3 hours Coaching techniques of skills and strategies.

Prerequisite(s): Previous track and field experience or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2260 - Coaching Softball

3 hours Study of coaching strategies, skills, techniques and tactics for the organization and administration of a softball program. Students learn how to implement a softball program within a public or private school setting.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2350 - Introduction to Scuba Diving

3 hours (2;1) Provides a basic knowledge and understanding of scuba diving, with applied practical use of scuba equipment. Basic skills are developed which prepare students for certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2550 - Skill Competency for Physical Education Candidates

2 hours Prepare teacher candidate students with the knowledge and skills necessary to demonstrate competent movement performance and to teach a variety of movement skills effectively. The skills and associated knowledge are found in the Texas Essential Knowledge and Skills (TEKS) and National Association for Sport and Physical Education (NASPE) (as prescribed in Physical Education Curriculum Analysis Tool from Centers for Disease Control and Prevention).

Recommended: Admission to teacher education program and purchase of Teaching K20 (Tk20).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2800 - Studies in Kinesiology

1–6 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2900 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2910 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3020 - Movement for Individuals with Disabilities

3 hours (2;1) Comprehensive practical approach to conducting physical activity programs for individuals with disabilities. Course includes discussion on relevant federal legislation, the social model of disability, procedures for assessment, and best practices for working with individuals with developmental, congenital, acquired or sensory disabilities. Students will complete a 10-hour lab and 15-hour service learning assignment.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3030 - Fundamentals of Sport Nutrition

3 hours

This course will merge the basic principles, latest evidence-based knowledge and scientific understanding of sports nutrition with real-world practical applications and examples.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed KINE 2030, KINE 2050, MATH 1680 and PHED 1000 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3050 - Biomechanics

3 hours

The analysis of efficient movement through a study of mechanical and anatomical principles and their application to human movement.

Prerequisite(s): Either BIOL 2301/BIOL 2311 OR KINE 2105, with a grade of C or better, or consent of department.

Kinesiology majors must have an overall GPA of 2.5 or higher and have passed the following with a grade of C or better: MATH 1680, PHED 1000, KINE 2030, and KINE 2050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3080 - Physiological Bases of Exercise and Sport

3 hours

Applied physiology course of study including bioenergetics, neuromuscular factors, and cardiovascular and pulmonary dynamics during exercise. Emphasis is placed on acute and chronic responses of human physiology to exercise stress.

Prerequisite(s): Either BIOL 2301/BIOL 2311 AND BIOL 2302/ BIOL 2312, OR KINE 2105, with a grade of C or better.

Kinesiology majors must have an overall GPA of 2.5 or higher and have passed the following with a grade of C or better: MATH 1680, PHED 1000, KINE 2030, and KINE 2050.

Meets with BIOL 3080.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3081 - Physiological Basis of Human Performance Laboratory

1 hour

Provides introductory knowledge and skills in implementing exercise testing with an emphasis on collecting and analyzing applied physiological data of the human responses to exercise. Course material is presented with a focus on the application of physiological concepts and related measurement techniques.

Prerequisite(s): BIOL 2301/2311, BIOL 2302/ 2312, OR KINE 2105 with a grade of C or better, or consent of instructor. Must be taken concurrently with KINE 3080.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3090 - Motor Behavior

3 hours Concepts related to motor skill acquisition, motor control and motor performance.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3150 - Psychology of Exercise

3 hours Introduces students to theories explaining and predicting physical activity behavior, psychological and physiological effects of exercise on mental and physical health, health and exercise behavior change strategies, and interventions for increasing physical activity participation and adherence across the lifespan.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Same as HLTH 3150.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3200 - Coaching Basketball

3 hours Skills, strategies and knowledge of coaching and administration of basketball athletic programs.

Prerequisite(s): PHED 1710 or PHED 1711 with a minimum grade of B or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3250 - Coaching Individual Sports

3 hours Study of skills, knowledge and strategies associated with coaching selected individual sports such as tennis, racquetball, badminton, swimming, wrestling, gymnastics and golf, plus a study of administration of teams, tournaments and special events.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3260 - Coaching Youth Sport

3 hours Coaching best practices that meet the needs of children and adolescents in non-school sport programs. Students develop a coaching philosophy; plan and demonstrate effective communication, instruction and management techniques; and create appropriate conditioning programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3270 - Principles and Ethics in Sport

3 hours Examination of the ethical and moral structure of sport in the post-modern era. Ethical considerations regarding pushing the limits of science in an effort to win at any sport. Exploration of the mores of today's society as they intersect with the values of sport.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3350 - Advanced Scuba Diving, Marine Conservation and Environmental Crime

3 hours (2;1) Provides students with advanced scuba diving skills, while developing an understanding of the complex ecosystems found in the marine environment. Various underwater tasks broaden student awareness of marine conservation, the environment and their capabilities as divers.

Prerequisite(s): Students must demonstrate good physical stamina, the ability to complete a 200-yard swim, a 10-minute water tread and a current open-water scuba certification, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3400 - Administrative Theory and Practice in Athletic and Sport Regulatory Organizations

3 hours Administrative theory and practices in planning, organizing, staffing and evaluating athletic and sport organizations. Emphasis is placed on factors involved in administrator behaviors needed for successful programs in school athletic and sport regulatory organizations.

Prerequisite(s): Kinesiology majors must have passed KINE 3080 and KINE 3090 with a minimum grade of C AND have a 2.5 overall GPA or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3500 - Motor Development

3 hours Basic up-to-date view of the processes and mechanisms underlying the development of motor skills.

Prerequisite(s): Kinesiology majors must have passed KINE 3080 and KINE 3090 with a minimum grade of C AND have a 2.5 overall GPA or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3540 - Learning and Teaching in Physical Activity

3 hours The complexity of developing and facilitating learning experiences in physical activity and education is addressed across the psychomotor, cognitive and affective domains. Learning and teaching in K-12 school and other settings (youth sport, therapy) are the focus with authentic, practical experiences.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children

3 hours (2;1) Effective use of communication and pedagogical skills and strategies to enhance student engagement and learning. Focuses on developmentally appropriate physical education at the EC–6 level, highlighting movement education theory and application. Candidates are provided with opportunities to learn and implement effective demonstrations, explanations and instructional cues and prompts, linking physical activity concepts to appropriate learning experiences. Candidates are afforded both peer teaching and field based applications of content.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education

3 hours (2;1) Pre-service candidates develop knowledge and skills necessary to deliver developmentally appropriate school-based physical activity programs for adolescents. Includes application of concepts, principles, strategies and tactics related to movement such as dance, fitness and performance of individual and team sports. Candidates design and implement lesson plans, conduct class observation, assess student learning, apply achievement motivation

theories and implement advanced technology in various physical activity settings. Candidates complete peer teaching and field based experiences in 6-12 school settings.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course is required for students seeking all-level teacher certification. For students born outside the U.S., a TB test may be required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4000 - Psychology of Sport

3 hours Survey of the literature concerning the relationship of psychological processes and motor performance. Topics include motivation, communication, anxiety management, youth sports, concentration, confidence and group dynamics.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4050 - Quantitative Analysis in Kinesiology

3 hours Study of measurement theory, instruments used to collect data and procedures for data analysis specific to exercise and sports. The use of computers for data analysis is included.

Prerequisite(s): Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4100 - Curriculum and Methods in Kinesiology (Sport Pedagogy)

2 hours (3;0;3) Plan and implement developmentally appropriate learning experiences aligned with local, state and national standards to address the diverse needs of all students. Utilize assessments, reflection and discipline planning to foster student learning and inform instructional decisions. Students must sign up for a 1 credit lab in which they will complete 55 hours of early field experience (EFE) in elementary and secondary school settings concurrent with this class. This 1 credit lab requires approximately 4 hours per week of observation during the school day. These 4 hours will be completed outside of scheduled class time. Students must apply for EFE through the field advising office the semester prior to taking the course. Note: deadlines for application may occur prior to early registration.

Prerequisite(s): KINE 3020, KINE 3500, KINE 3550, KINE 3560. Admission to teacher education. Kinesiology majors must have passed KINE 3080 and KINE 3090 with a minimum grade of C AND have a 2.5 overall GPA or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4101 - Early Field Experience Kinesiology Certification

1 hour Students experience firsthand the scope and sequence of physical education. Assignments, directed field experience and other class activities take place on site in a K–12 school setting.

Corequisite(s): KINE 4100.

Recommended: KINE 3020, KINE 3500, KINE 3550, KINE 3560. Admission to teacher education.

Must apply for EFE using foliotek, the semester previous.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4102 - Student Teaching in Physical Education, Grades EC–5

3 hours Teaching under supervision in an elementary physical education setting (EC–5/6). Required for those seeking all-level teacher certification in physical education. See Student Teaching Program for details.

Prerequisite(s): KINE 2030, KINE 2050, KINE 3020, KINE 3050, KINE 3080, KINE 3090, KINE 3500 , KINE 3550 , KINE 3560, KINE 4000, KINE 4100, KINE 4050, HDFS 3123, EDCI 3830. Admission to teacher education program; six (6) PHED courses; 15/18 hours in minor area.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4104 - Student Teaching in Physical Education, Grades 6–12

3 hours Teaching under supervision in a secondary physical education setting (grades 6-12). Required for those seeking all-level teacher certification in physical education. See Student Teaching Program for details.

Recommended: KINE 2030, KINE 2050, KINE 3020, KINE 3050, KINE 3080, KINE 3090, KINE 3500, KINE 3550, KINE 3560, KINE 4000, KINE 4050, KINE 4100, HDFS 3123, EDCI 3830. Admission to teacher education program; six (6) PHED courses; 15–18 hours in minor area.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4200 - Basic Athletic Training

3 hours Current practices in care and prevention of athletic injuries and medical problems related to athletics.

Prerequisite(s): BIOL 2301 and BIOL 2311, OR KINE 2105 with a minimum grade of C.

KINE 3080.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4250 - Advanced Athletic Training

3 hours Etiology, evaluation and treatment of athletic injuries. “Hands on” approach to allow transfer of information covered in class to everyday use. Examination of each body part and its injuries as it pertains to athletics. Determination of the best course of action is to be taken immediately after an injury occurs. Helps prepare students for the National Athletic Trainers’ Association Certification Exam and the Texas Licensing Examination.

Prerequisite(s): KINE 3080 and KINE 4200 with a minimum grade of C.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4260 - Principles of Rehabilitation and Therapeutic Modalities

3 hours

Theory, principles and physiological effects of therapeutic modalities used in treatment and rehabilitation of injuries. Emphasis placed on indications, contraindications and appropriate selection of modalities for therapeutic intervention. Teaches students to plan and implement functional rehabilitation programs using therapeutic modalities, functional activity, plyometrics and other exercises based on goal setting and objectives.

Prerequisite(s): KINE 3080 and KINE 4200 with a minimum grade of C.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4300 - Exercise Leadership

3 hours

Integrates the scientific basis of exercise prescription with the practical skills of exercise prescription necessary for leadership of exercise in a variety of modes for groups of individuals.

Prerequisite(s): KINE 3080 or HLTH 3085

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4310 - Advanced Strength and Conditioning I

3 hours

Students acquire knowledge regarding implementing strength and conditioning programs, coaching different types of athletes, strength and conditioning program design, proper resistance exercise techniques and evaluation of physical performance capabilities. Prepares students for the practical applied aspects of strength and condition certifications.

Prerequisite(s): KINE 2010, KINE 3080 OR HLTH 3085 with a grade of C or better, or consent of instructor.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4315 - Advanced Strength and Conditioning II

3 hours Design and implementation of advanced strength and conditioning programs, strength and conditioning periodization, proper speed and agility exercise techniques, and long-term athletic development of various types of athletes, ages, and levels. Assists students in preparation for the Certified Strength and Conditioning Specialist (CSCS) certification offered by the National Strength & Conditioning Association (NSCA). Focus of the course material includes the Practical/Applied portion of the exam. Additional preparation outside of the course will be needed to perform adequately on the CSCS exam.

Prerequisite(s): KINE 4310 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4320 - Exercise Testing and Prescription

3 hours

Applied techniques for the measurement of exercise bioenergetics, neuromuscular performance, cardiorespiratory fitness and motor ability. Particular emphasis is given to the assessment of acute and chronic (training-induced) physiological responses arising from exercise training programs. Application and evaluation of test results are used to develop exercise prescriptions for individuals participating in specific sports and training programs.

Prerequisite(s): KINE 3080.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4325 - Fitness Testing

3 hours (2;1)

Practice of fitness assessment with an emphasis on practical application.

Prerequisite(s): KINE 3080 or HLTH 3085.

Kinesiology majors must have an overall GPA of 2.5 or higher and must have passed MATH 1680, PHED 1000, KINE 2030, and KINE 2050 with a grade of C or better in each.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4330 - Advanced Sport Nutrition and Metabolism

3 hours Nutritional principles required for exercise and health. Emphasis placed on the role of biochemical production of ATP.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4410 - Facilities, Equipment and Budget for Athletics

3 hours Study of facilities relative to quality and intended use. Equipment study to include construction, procurement and maintenance. Budgeting includes sources of monies and record keeping.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4550 - Issues in Movement Acquisition for Youth

3 hours Systems for promoting motor skill acquisition, assessment and analysis based on current, applicable issues in movement activity for youth; identification of principles, programming and inclusion of children with special needs in physical activity setting; and importance of maximal involvement of all learners in movement program for youth.

Prerequisite(s): KINE 3500 and KINE 3550, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4800 - Studies in Kinesiology

1–6 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4850 - Kinesiology Capstone

3 hours Course is intended to provide a bridge between theory and application. Preparation for industry certifications is included.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4860 - Internship in Kinesiology

3 hours In-depth practicum affiliation work in an approved agency selected from corporate, commercial or clinical settings. Emphasis is placed on application of knowledge and skills to actual job roles and responsibilities.

Prerequisite(s): KINE 2010, KINE 3050, KINE 3080, KINE 3090, KINE 4000, and KINE 4050 with a grade of C or better and have a 2.5 overall GPA or higher and consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

KINE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Korean

KORE 1010 - Elementary Korean

(KORE 1411)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

KORE 1020 - Elementary Korean

(KORE 1412)

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): KORE 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

KORE 2040 - Intermediate Korean

3 hours (3;2) Grammar, composition, oral-aural practice and readings.

Prerequisite(s): KORE 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

KORE 2050 - Intermediate Korean

3 hours (3;2) Grammar, composition, oral-aural practice and readings.

Prerequisite(s): KORE 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Language

LANG 1010 - Elementary Language

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 1020 - Elementary Language

3 hours (3;2) Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): Foreign language course 1010 in same language, or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 2040 - Intermediate Language

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): Foreign language course 1020 in same language, or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 2050 - Intermediate Language

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): Foreign language course 2040 in same language, or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 2900 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 2910 - Special Problems

1–4 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LANG 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Latin

LATI 1010 - Elementary Latin

(LATI 1411)

3 hours (3;2) Grammar and basic vocabulary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 1020 - Elementary Latin

(LATI 1412)

3 hours (3;2) Grammar and basic vocabulary.

Prerequisite(s): LATI 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 2040 - Intermediate Latin

(LATI 2311)

3 hours Grammar principles and readings from representative Roman authors; Vergil.

Prerequisite(s): LATI 1020 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 2050 - Intermediate Latin

(LATI 2312)

3 hours Grammar principles and readings from representative Roman authors; Livy.

Prerequisite(s): LATI 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 3050 - Topics in Latin Literature

3 hours Readings in classical, medieval or renaissance Latin literature. Emphasis is on reading fluency grounded in aesthetic and historical appreciation.

Prerequisite(s): LATI 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 3060 - Being A Roman: A Day in Ancient Rome

3 hours Immersion in the everyday life of ancient Romans though primary and secondary sources. Emphasis on advanced grammar and vocabulary, and various aspects of Roman civilization. Focus on Roman political, economic and social life.

Prerequisite(s): LATI 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 4900 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

LATI 4910 - Special Problems

1–3 hours NONE

Prerequisite(s): Consent of department

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Latinx and Mexican American Studies

LMAS 4854 - Research Capstone for LLAS Majors

3 hours Culminating experience in Latino Latin American Studies (LLAS) through an independent research or creative project.

Prerequisite(s): Consent of department.

LMAS 4953 - Internship Capstone for LLAS Majors

3 hours Applies Latino Latin American Studies (LLAS) theories in real-world settings through internships with organizations serving Latinx clients or constituents.

Prerequisite(s): Consent of department.

Learning Technologies

LTEC 1100 - Computer Applications

3 hours Introduction to computer usage. Integrated approach to software tools such as word processing, database management, spreadsheet, communications and graphics applications.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 2100 - Surviving the Information Age

3 hours A collegiate guide to Internet resources and information procurement. Topics include: connecting to UNT resources, peripheral selection and use, tips for purchasing and using application software, an overview of graphics software, applications of the Internet, HTML code, methods of establishing an Internet connection, net casting, voice and video conferencing, PC-based troubleshooting techniques, electronic research, and information processing using the Internet.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 2600 - Digital Tools in Education

3 hours Prepares pre-service teachers to select and use digital tools to infuse technology into teaching and curricular decisions. Major topics include selecting digital tools, technology limitations, inequities in student access, and technology integration in face-to-face, blended, and online learning environments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Recommended: Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 3000 - Foundations of Learning Technologies in STEM

3 hours This course focuses on learning across STEM Disciplines using a variety of technologies: cloud computing, mobile devices, MOOCs, virtual labs, etc. Students learn problem-solving and inquiry skills, and apply those to interpret, aggregate, and create arguments based on evidence. Real-world problems with data driven and focused outcomes are used to follow a process, develop a solution, perform analysis, and communicate findings.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 3010 - Personal Development

3 hours Provides opportunities for students to develop themselves professionally. Special emphasis is placed on charting a course through goal setting, discovering and launching a career in today's environment. Topics covered include determining avenues to find a job, creating a career portfolio and preparing for an interview, getting started at a new job, dressing for success, e-mail etiquette, diversity in the workforce, stress management, business etiquette, time management, and selecting and working with a mentor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 3100 - New Horizons for Learning Technologies in STEM

3 hours This course focuses on innovative and emerging technologies and their use in STEM Disciplines. Students use gamification, immersive learning environments, wearable technologies, and other tools to explore conditions of learning, transfer, motivation, ability, and learner characteristics across STEM.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 3200 - Leadership and Ethical Practices for STEM Professionals

3 hours This course is a study of contemporary leadership practices, ethical issues, and team dynamics related to STEM occupations. It focuses on evidence-based leadership practices while addressing ethical practices that future leaders in STEM occupations might face along with best practices on how to manage in multidisciplinary group environments.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3220 - Computer Graphics in Education and Training

3 hours Application of computer graphics to the preparation of multimedia and web-based materials. Includes principles of graphics communication, concepts in computer graphics, graphics input systems, graphics manipulation software, and graphics output systems.

Prerequisite(s): LTEC 2100 or consent of the department

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3260 - Web Authoring

3 hours Creation of web-based materials incorporating text, graphics, and multimedia elements. Emphasis on use of standards-based technologies for creating content for web-based delivery.

Prerequisite(s): LTEC 2100 or consent of the department

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3261 - Advanced Web and Media Development

3 hours Introduction to advanced methods and programming/scripting to develop of Web and Media systems. Instructor chooses the language(s) to be used during the course. Past languages have included PHP/HTML, MySQL, JavaScript, and others.

Prerequisite(s): LTEC 3260 or consent of department.

Meets with LTEC 5421.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3440 - Introduction to Instructional Technology

3 hours Introduction to instructional technology and its application in education and business with an emphasis on online learning and environments.

Prerequisite(s): Must have passed LTEC 1100, or consent of the department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3530 - Data Communications and Networking for Next Generation Learning

3 hours Foundational skills in data communications. Covers the basics of computer networking, including terms and concepts, contemporary network services, transmission media, and protocols. Students learn how protocols are used in networking implementations from many vendors, especially those most common in today's LANs and WANs.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3610 - Principles of Team Science

3 hours This course provides students with an overview of team science and how this field of science applies to the workplace. Students will gain an understanding of evidence-based practices that apply to team and small group settings and will learn how to apply these practices to the workplace. The fundamentals of teams and their processes will be covered along with introducing students to various tools that could be applied to team and small group settings in the workplace.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3620 - Team Building

3 hours This course introduces students to the different types of teams and their processes. Students will learn systematic approaches to team building, including planning, implementing, managing, and completing the teamwork processes. Students will become familiar with the six enabling conditions that create team-friendly work environments. Students will learn different team building tools, the role that diversity plays in successful teams, and will be introduced to some of the challenges to teamwork.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3630 - Team Dynamics

3 hours This course focuses on describing, exploring, and understanding all things related to human groups. Being able to successfully work in a team/group environment is critical in today's age of complexity. This course identifies the characteristics of a team, studies different team related theories, identifies how to manage or lead teams, and highlights how to optimize a team's overall performance. As an interdisciplinary topic, this course covers evidence-based literature from the disciplines of anthropology, biology, psychology, sociology, and other social sciences.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 3640 - Leadership and Team Leadership

3 hours This course provides a study of leadership theories, leadership styles, and leadership development techniques. Students will begin with a historic overview of leadership research from trait-based theories to leadership theory. Students will focus their attention on learning team-based and collective types of leadership theories. Following, students will learn different practices and techniques in leadership development and will learn to apply some of these techniques to developing leaders in the workplace. This course focuses on evidence-based leadership and leadership development techniques while addressing current issues related to ethical leadership, power, diversity, leader-member interactions, and leadership development evaluation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 4000 - Principles of Training and Development

3 hours Investigates the design, delivery and evaluation of training and development programs. The relationship of modern technology and training theories are addressed.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 4040 - Organizational Development and Performance Improvement

3 hours Explores the need for organizational change by examining the process of needs analysis, intervention selection, implementation and evaluation. Focus is on performance improvement and organizational development.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 4050 - Entrepreneurship and Performance Improvement

3 hours The role of small business and the utilization of technology for performance improvement are addressed along with the advantages and limitations of small business ownership. Small business planning and operation are explored through the development and use of technology.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LTEC 4060 - Project Management and Applied Technology Performance Improvement

3 hours Explores the life cycle of defining, planning, executing and delivering a project. Students learn and apply the processes and methods of project planning, management and evaluation through a simulation activity. The use of technology applications is addressed to improve human performance.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4070 - Principles of Leadership, Empowerment and Team Building

3 hours The nature and scope of leadership and empowerment as it relates to applied technology and industrial training environments; the techniques for leadership, empowerment and team building are emphasized.

Prerequisite(s): Junior standing or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4100 - Technology Integration

3 hours Computers in education; computer topics covered in formal and informal learning. Motivation and objectives in computer education; some programming language. Instructional uses of the computer, topics in curriculum integration.

Prerequisite(s): Must have passed LTEC 1100, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4121 - Technical Presentation Skills

3 hours Emphasis on technical presentation skills and electronic presentation media commonly utilized in training and development. Topics such as developing an audience profile, arranging facilities, topic introduction techniques, questioning and summary strategies are addressed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4160 - Advanced Computer Applications in Education and Training

3 hours Designed as an advanced preparation for students preparing to enter organizations in education or training that utilize modern computer-based technologies that include: graphic applications, telecommunications, networking, programming and computer-based training.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4200 - Performance Improvement in Education and Training

3 hours Introduction to the history, theory and practice of human performance technology in education and training. Explores the systemic process of analysis, intervention development, change implementation and process evaluation involved in performance improvement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4210 - Introduction to Video Technology

3 hours Production of multimedia materials using digital video and audio production techniques. Project management teams, instructional design, editing techniques, digitizing, using a video camera, and production/post-production techniques are covered.

Prerequisite(s): LTEC 3220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4230 - Directed Occupational Internship in Industry or Training

1–3 hours Supervised individual work experience in a recognized occupation or field of specialization.

Prerequisite(s): Consent of department.

(2000 clock hours equals one year of experience or 8 semester credit hours.) For those who meet the necessary state-mandated requirements for years of work experience these credits can be granted for successful completion of an occupational competency examination. May be repeated up to 24 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4440 - Advanced Instructional Strategies

3 hours Emphasis on advanced instructional techniques; including questioning, discussion, problem-solving, motivation, and instructional development used in applied technology and industrial training setting.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4470 - Human Relations in Business, Education and Industry

3 hours A study of the components of human relations and interpersonal communication factors in business, education, trade and industrial education and training programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4490 - Serving Learners from Special Populations in Applied Technology Programs

3 hours Introduction to identification, assessment, instructional and curriculum modifications, support services and evaluation of learners from special populations (e.g. disadvantaged, disabled and limited English-speaking) in applied technology programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4510 - Communications in Business, Education and Industry

3 hours Important factors in succeeding on the job. Emphasis is placed on communication, strategies for conducting meetings and seminars, conflict management, developing and arranging agendas, itineraries, minutes and business reports, designing and using business graphics, and job-getting communication.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4550 - Network Systems Administration

3 hours Study of file and print network services in a directory services environment. Topics include server configuration, user management, resource allocation, risk management, and disaster recovery.

Recommended: LTEC 3530.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4560 - Internet Services Administration

3 hours Design and implementation of Internet information services including FTP, NNTP, World Wide Web and streaming media. Conferencing using H.323 and T.120 standards-based systems. Students both design and build various information services using representative software tools and hardware platforms.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4610 - Team Cognition

3 hours This interdisciplinary course focuses on describing, exploring, and understanding human cognition in social settings. This course explores the meaning of cognition with emphases on cognition as a shared activity rather than just an individual activity.

This course covers evidence-based literature from other cognate disciplines such as anthropology, biology, computer science, psychology, sociology, and other social sciences.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4620 - Team Decision Making

3 hours This course provides overview of individual decision making techniques then extends the conversation to include group level decision making techniques and theories. Students will be able to identify and distinguish between various problem types (i.e., simple problems, complex problems, wicked problems). Students will learn how to address complex and wicked problems using different group decision making tools and processes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4630 - Evaluation, Measurement and ROI

3 hours This course covers evaluation techniques for assessing the performance of individual team members and teams. Different evaluation models for the workplace will be presented along with coverage of topics related to assessing return on investment (ROI).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4640 - Team Coaching

3 hours This course covers coaching tools and techniques focused on coaching (i.e., individual members, teams, and groups of teams). This course reviews coaching and how coaching can be applied in the workplace to aid teams perform more effectively and to manage its own resources and team processes. Students will gain an understanding of some coaching skills and will learn specific coaching techniques that can be applied to teams and small group settings in the workplace.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4741 - Learning Technologies Capstone

3 hours A capstone course designed for students to synthesize the knowledge, skills, and attitudes learned throughout the undergraduate applied degrees with concentrations supervised by the Department of Learning Technologies. Students will demonstrate their ability to articulate career pathways, apply technology in the workplace, and contribute to the organizational structure of either business and industry or education.

May only be taken during the final term/semester of the ATPI professional development sequence.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4800 - Studies in Education

1–3 hours Organized classes for program needs.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4830 - Practicum, Field Problem or Internship

3 hours (1;0;6) Supervised professional activities in computer education.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4900 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4910 - Special Problems

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LTEC 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

Linguistics

LING 1020 - Speech for International Students

3 hours (3;2) Designed for international students learning English as a second language. Emphasis on improving oral English communication skills through lectures and labs on speech sound production, vocabulary, grammar, word order, intonation and idioms. Individual and small-group work.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 1312 - Academic Grammar and Writing for International Students

3 hours Provides students with the skills needed to think critically and creatively while learning to analyze the modes of communication in academic writing. Students will read texts, articles, attend events, work collaboratively with their classmates and develop effective academic communication and critical thinking skills.

May be substituted for ENGL 1310 by international students only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 1322 - Research Writing and Preparation for International Students

3 hours Students write a research paper on language and science related topics, work collaboratively with their classmates to learn how to disseminate research via social media, poster/ power point presentations, and publishable papers. Students learn about research ethics, IRB clearances, and citation standards in the American context.

Recommended: LING 1312 or equivalent.

May be substituted for ENGL 1320 by international students only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2040 - Endangered Languages

3 hours Global survey of cultures, political ecologies and environmental issues related to language endangerment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2050 - The Language of Now: Pop Culture, Technology and Society

3 hours Explores the relationship among pop culture, rapidly changing technology and language change. Examines the linguistic significance of new technologies such as texting, gaming, instant messaging and social networking.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2060 - Language and Computers

3 hours An introduction to the theory and practice of human language technology. Topics include text encoding, search technology, tools for writing support, machine translation, forensic linguistics, dialog systems, computer-aided language learning, and the social context of language technology.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2070 - Language and Discrimination

3 hours Linguistic discrimination has been referred to as "the last acceptable prejudice," and it can occur in any situation in which multiple languages or dialects are spoken. The earliest recorded instance comes from an Old Testament description of a battle in which one's pronunciation of the word "shibboleth" was literally a life-or-death question. Flashing forward to the 21st century, linguistic discrimination is still very much with us, and it occurs across demographics such as region, social class, race, gender, age, and many many more. Questions such as the following addressed in this course: how are speakers discriminated against based on their language variety; can a person's language affect access to employment, education, housing, medical care; what is the media's role in shaping our views of language; how are we socialized into language discrimination; what does it mean to speak a standard variety of a language; who/what determines the standard form of a language; what is linguistic profiling?

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2080 - The Language of Courts and Crime

3 hours Linguistic interpretation plays a crucial role in almost every aspect of the legal system. From the written word in legal documents to the spoken word of law enforcement encounters and courtroom proceedings, much hinges on how interpretation is undertaken in these legal contexts. Using the tools of linguistic semantics and pragmatics—i.e. the sciences of "meaning"—this course delves into topics such as threats, perjury, hate speech, consent, Miranda rights, metaphor, hearsay, legalese, ambiguity and vagueness, statutes, contracts, jury instructions, interpretation of trademark and copyright law, intention versus "plain meaning," legal versus natural reasoning processes, dictionaries and authority, and more. The course begins with an introduction to the relevant aspects of linguistic semantics and pragmatics, and students then apply this knowledge to legal issues from actual court cases of the U.S. legal system. LING 2080 is excellent preparation for students of law and of linguistics, not to mention those of journalism, literature, communication, business, or any other discipline requiring the ability to reason carefully, clearly, scientifically, about both legal and ordinary language.

No previous knowledge of linguistics or law is assumed.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2090 - Conlang: The Art and Science of Language Invention

3 hours Dothraki, Elvish, and Klingon are constructed languages, known as Conlangs. They are not the result of natural evolution in language communities but rather a conscious creation of individuals. This introductory course is concerned with the analysis and creation of artificial languages. Focusing on the linguistic part of this creation, the ultimate goal is to construct new languages and at the same time learn about the structure and uses of their natural language counterparts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by freshman or sophomore honor students under the supervision of a faculty member.

Recommended: Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3010 - African American English

3 hours Examines the history, linguistic structure, social dimensions, and political and educational debates of African American English.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3020 - Forensic Linguistics

3 hours This course investigates the role that language and linguistics play in legal oral and written discourse, specifically in the areas of semantics, pragmatics, discourse analysis and sociolinguistics. We will study how linguistic science can be explored and applied in legal settings. Case studies and practical real-world strategies, including criminal investigations, trial, and judicial procedure will provide an explicit connection between theory and practice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3040 - The Politics of Language

3 hours Study of the inevitable interactions between language use, and the displays and distribution of power among speakers. The course focuses on what constitutes political speech - be it in the privacy of individuals' interactions, or in the more public arena of institutions, or group management. It is in the context of the tripartite sub-classification of power, politics, and structure that the course investigates the role of language in producing and reinforcing unequal relations of dominance in society.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3050 - Communication Across Species

3 hours This course considers perspectives and issues of animal and human language and communication using cross-disciplinary evidence from different fields. Two major questions are addressed and explored: "How do humans and non-humans communicate?" and "What are the similarities and differences in communicative abilities between humans and non-humans?"

No previous knowledge of linguistics is required.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3060 - Principles of Language Study

3 hours Introductory linguistics course that focuses on the structure of English (phonology, morphology and syntax). Includes language acquisition and development, the history of English, dialects of American English, and problems of usage. Students who have taken LING 3070 may not take LING 3060.

For non-majors. Students who have received credit for LING 3060 will need to take LING 3070, if they decide to major or minor in Linguistics. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070 as prerequisite in many upper level linguistics courses.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3070 - Introduction to Linguistics

3 hours Introduces students to the richness and complexity of human language. Focuses on the fundamentals of phonetics, phonology, morphology syntax, semantics and pragmatics.

Recommended: For Linguistics majors, Linguistics minors and Integrative Studies students only. Consent of linguistics program undergraduate advisor is required for non-majors. Students that have taken LING 3060 as a non-major must complete LING 3070 if they are pursuing a major or minor in linguistics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3080 - Language and Society

3 hours Survey of the quantitative and qualitative analytical approaches used to understand language as a social practice. Analyzing the fluid, rather than static, structure of language, as it exists and changes in the service of people and communities.

Recommended: LING 3060 or LING 3070.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3090 - Discourse Analysis: Talking and Telling

3 hours Methods and concepts of discourse analysis and conversational analysis. Applying these methods to the study of spoken language.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4010 - Language Variation

3 hours Analysis of the sources of linguistic variation and the mechanisms that lead to linguistic change in English and other languages.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4020 - Structure of Modern English

3 hours Modern English grammar, morphology and syntax; principles of analysis and various theories of English structure; relationship between linguistic structure, rhetorical pattern and literary style.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4030 - Acquisition of English as a Second Language

3 hours Study of language acquisition, development, production and comprehension focusing on the application of current research findings to the context of learning and teaching English as a second language.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4040 - Phonetics and Phonology: The Sound Patterns of Language

3 hours Explores two fundamental aspects of the sounds used in human language: phonetics and phonology. Analyzes the sounds of English and other languages spoken around the world.

Prerequisite(s): LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4050 - Morphology

3 hours This course will introduce students to the foundations of morphological analysis, providing descriptive and analytical techniques for understanding the internal structure of words.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4055 - Syntax

3 hours Introduces students to the foundations of syntactic analysis and to the descriptive and analytical techniques for understanding the internal structure of sentences of typologically different language systems.

Recommended: LING 3070.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4060 - Scientific Methods

3 hours Provides an introduction to a range of quantitative and qualitative research methods widely applicable in linguistic research and to the different steps involved in scientific investigation and academic writing. Students will learn techniques for using library

resources, formulating research questions, writing a literature review, collecting and analyzing data, preparing and writing a research proposal for a language study.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4070 - History of the English Language

3 hours Evolution of Modern English from Indo-European through Old English and Middle English.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4080 - Teaching English as a Second Language

3 hours Theory and method of teaching English as a second language. Study of major approaches with specific attention to methods of teaching, listening, speaking, reading and writing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4090 - Semantics and Pragmatics

3 hours Introduction to the linguistic sub-discipline of semantics. Examines how meaning emerges at the word, sentence, constructional and utterance levels, and how second language users require it. Includes an introduction to empirical methods for the study of meaning.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in Linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4100 - Poetics

3 hours Examines the universal language of linguistic power and how writers choose their words and sequences of words.

Recommended: LING 3060 or LING 3070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4120 - Migration and Language Contact

3 hours Study of the linguistic and social patterns resulting from language contact due to migration. Topics include lexical and structural borrowing, code switching and formation of pidgins, creoles, and mixed languages.

Recommended: LING 3060 or LING 3070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4130 - Discovering Language from Data

3 hours Application of computational tools to curate, analyze and produce a variety of research products from text, video and audio language data, including methods of language transcription, data analysis and presentation formats.

Recommended: LING 3070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4135 - Python Programming for Text

3 hours Teaches Python programming focusing on applications for text.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4140 - Computational Linguistics

3 hours Study of the foundational methods used for the automated analysis of language, as well as how linguistic knowledge influences those methods. Students also learn basic Python programming and work with the Natural Language Toolkit.

Prerequisite(s): LING 3070 and LING 4135.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4380 - Field Methods

3 hours Experience in the discovery of the phonology, morphology and syntax of a language through techniques of elicitation and analysis of data. Technical and methodological aspects of the course include learning about the use of latest technology for language documentation and description; also approaches to data preservation, data management, and archiving.

Prerequisite(s): LING 3070 Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4410 - World Englishes

3 hours Examines the historical and political reasons for the spread of English around the world and the creation of new varieties of English. Unique formal structures, pragmatic and conversational principles of interaction used in local and global print and broadcast media, creative fiction, and technical writing. Includes a survey of how English is taught around the world.

Prerequisite(s): LING 3060 or LING 3070.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4800 - Special Seminar in Linguistics

3 hours Study of linguistics that extends scope of traditional offerings.

Recommended: LING 3070. Students who have received credit for LING 3060 with a grade of A prior to declaring a major in linguistics may substitute LING 3060 for LING 3070; or consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4920 - Linguistics and Law Internship

3 hours Bridges coursework with the internship experience through employment or a volunteer position related to the study of linguistics and law. This might include, but is not limited to, working with a law office, a legal nonprofit, an educational institution, a branch of government, or other entity related to the legal system. Directed by a faculty member of the department and a coordinating supervisor from the internship venue.

Prerequisite(s): LING 2080, LING 3020 and LING 3060.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $13.80

LING 4950 - Senior Capstone Field Experience and Methods

3 hours Introduces quantitative and qualitative research methods in linguistics as well as scientific investigation and academic writing. Culminates in a final project in which students apply linguistic research methodologies to original data and ultimately present their research project before a linguistics audience. Must be taken in the final semester of major.

Recommended: Linguistics majors only.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

LING 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $13.80

Logistics and Supply Chain Management

LSCM 2960 - Introduction to Supply Chain

3 hours Designed to provide students with a broad understanding of the fundamentals of supply chain management. Focuses on concepts and methodologies for managing the flow of material and information throughout the supply chain and its impact on other areas of business such as finance, accounting, marketing, data management and strategy. Includes an introduction to integrated supply chain management. Core capabilities in plan, source, make, deliver, service/customer management, new product design, strategy, governance, project management, performance management, technology enablement, and supply chain finance are explored to provide students with a comprehensive cross-functional view of demand-driven value networks.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 3960 - Logistics and Supply Chain Management

3 hours Analysis and design of domestic and international logistics systems. Topics include transportation, warehousing, inventory control, materials handling and packaging, and plant and warehouse locations within and between firms. Emphasis on concepts and practices that provide firms with a competitive advantage.

Prerequisite(s): Junior standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4360 - Global Alliances and International Supply Chain Management

3 hours Supply chain and alliance strategy in the multi-national firms. Materials management, international sourcing and distribution, and importing/exporting procedures. International carrier management and operations are examined.

Prerequisite(s): LSCM 3960.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4510 - Logistics and Business Analysis

3 hours Analyses of logistics case studies and development of issue-based problem solving skill sets and tools. Development of business analysis frameworks and application of Excel-based optimization tools to assess shareholder value implications of logistics solutions.

Prerequisite(s): LSCM 3960.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4530 - E-Logistics in Supply Chain Management

3 hours Comprehensive inquiry into the role of e-commerce in collaborative distribution and logistics relationships. Special attention is afforded to resource and technology interdependencies, exchange governance mechanisms and relationship management bench-marking. Emphasis is given to the tools for creating value in the supply chain.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems

3 hours (2;2) Students gain first-hand experience in Enterprise Resource Planning (ERP) systems through a combination of lectures and lab exercises. Special attention is paid to interdependencies between logistical (SCM) and back office software functions such as finance (FI), controlling (CO) and human resources (HR). Students learn how to navigate, analyze data and develop solutions for supply chain management problems using a modern, commercially available ERP system. Students learn how to work through key tasks in all major modules and develop greater understanding of the underlying supply chain business processes.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4550 - Logistics Systems Modeling/Simulation

3 hours Introduces MKTG and LSCM systems modeling and simulation approaches for logistics and supply chain management. Modeling includes the physical, mathematical or otherwise logical representation of a system, entity, phenomenon or process, and simulation is a method for implementing a model over time in an effort to design, test or analyze a "real-world" system. Modeling tools are used with a focus on a general purpose and a specialization with specific software tools (i.e., SIMIO). Along with individual assignments, students work in groups partnered with industry to build a simulation that addresses a "real-world" problem.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4560 - Business Transportation Management

3 hours Principles of transportation covering the role of transportation systems; environmental and economic impacts; modal components; managerial and economic aspects of the various modes, with applications to both domestic and international operations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4800 - Logistics Internship

3 hours Supervised work in a job related to the student's career objectives.

Prerequisite(s): LSCM 3960 and Department approval.

Must be within two long terms/semesters of graduation at the time of the internship and have consent of department chair or internship director. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4810 - Special Topics in Logistics and Supply Chain Management

3 hours Investigation, analysis and discussion of a variety of topics that are important in logistics and supply chain management. Topics may include supply chain management, transportation, logistics, distribution and channel management.

Prerequisite(s): LSCM 3960.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4860 - Advanced Logistics Management

3 hours Application of logistics decision-making tools and skills as they apply to inventory, transportation and warehouse management. Course stresses hands-on application of analytical tools useful in logistics; analysis of the characteristics of logistics system elements and their interrelationships within a company; developing skills to analyze technical logistics problems; and developing executive-level communications skills leading to the concise statement of problems and proposed solutions.

Prerequisite(s): LSCM 3960.

Capstone course to be taken during the last term/semester of course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4900 - Special Problems

1–3 hours Supervised study on a selected logistics and supply chain management topic. Typically requires a research paper and significant independent study.

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

LSCM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Management

MGMT 3330 - Communicating in Business

3 hours Development of interpersonal business communication skills in the following areas: group communication, written communication (collaborative writing and business letters, memorandums and reports), oral communication (business presentations, meetings and interviews) and listening. The following topics are also addressed: international communication and electronic communication technology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3660 - Contemporary Business Writing and Presentation Skills

3 hours (3;0;1) Provides students with the knowledge and skills necessary for effective oral and written communication in domestic and international professional settings. Communicate professionally by mastering how to write effective documents, deliver structured presentations, increase intercultural competencies, and develop employment communication skills.

Prerequisite(s): Open to business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3720 - Organizational Behavior

3 hours Individual behavior in formal organizations. Cases, lectures and experiential exercises in organizational culture, motivation, leadership, dynamics of power, perception and attribution, communication, decision making and performance, and individual differences.

Prerequisite(s): This course is for business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3721 - Essentials of Organizational Behavior for Non-Business Majors

3 hours Junior-level survey course designed to introduce non-business majors to the management of organizations and organizational behavior. Exposes students to the key concepts of the discipline with an emphasis on OB as a practical field. Topics include work attitudes, motivation, leadership, group and team processes, and decision-making.

Prerequisite(s): For non-business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3820 - Management Concepts

3 hours Management philosophy; planning, organizing and controlling; entrepreneurial processes; organizational performance; structure and design. Includes an overview of organization theory and strategic management.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3850 - Foundations of Entrepreneurship

3 hours Initiation of new ventures. Emphasis on developing effective entrepreneurial skills, analytical abilities, market analysis capabilities and understanding of principles of successful entrepreneurial actions. Includes preparation of a feasibility study.

Open to non-business majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3860 - Human Resource Management

3 hours Introduction to human resource management. Topics include workforce planning, selection and employment; job analysis and design; training and development; compensation and benefits; health, safety and security; and employee and labor relations.

Open to non-business majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 3880 - Business Ethics and Social Responsibility

3 hours A study of ethical behaviors crucial to personal and corporate success in organizations. Codes of ethics, theoretical models and managerial behavior serve as the foundation to investigate ethics and, in turn, social responsibility associated with firm theory. Various stakeholder interest and demands are analyzed as an important theme during the course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4100 - Business Planning for Entrepreneurs

3 hours Comprehensive planning of new ventures. Emphasis on business plans, selecting business models and revenue sources, refining effective entrepreneurial skills, project funding and generating a marketable plan for a viable new business. Includes preparation of a comprehensive business plan and presentations.

Prerequisite(s): MGMT 3850.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4130 - People Analytics and Information Systems

3 hours Designed to help equip students to excel in an increasingly data-driven HRM profession by providing them with foundational knowledge and skills in the appropriate and ethical use of data and HRIS (Human Resource Information System). Focuses on concepts and issues associated with the management, analysis, and ethics around data. Provides strategies that determine the need for, implementation of, and assessment of an HRIS to support informed decision making in HR. Integrates a conceptual foundation of key HR areas including planning, talent acquisition, training and development, performance management, and reward systems with relevant data analysis and dissemination approaches to support data-driven decision making in these areas.

Prerequisite(s): MGMT 3860.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4150 - Power, Influence and Politics in Organizations

3 hours This course provides a framework for analyzing the sources of power in organizations, and the circumstances that lead to its attainment and effective use. It also offers frameworks for evaluating political behaviors on both pragmatic and ethical grounds.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4180 - Workplace Health and Safety

3 hours Problems of Occupational Safety and Health (OSHA) workers' compensation, unemployment compensation, industrial security and environmental risk management.

Prerequisite(s): One of the following courses: MGMT 3860 or MGMT 3720/MGMT 3721.

Open to non-business majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4200 - Introduction to Management Consulting

3 hours Introduces students to the management consulting profession. Exposure to and development of a consulting skill set. Exposure to and interaction with leading consulting firms, and engagement in experiential projects that simulate work in that profession.

Prerequisite(s): Junior, Senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4210 - E-Management: Managing in a Digital Economy

3 hours Deals with the "why" and "how" of the changing face of management. Focuses on what managers do to maintain and enhance their firm's competitive position in the era of e-commerce. Examines and evaluates some of the more critical issues associated with analyzing the environment, designing organizations and managing people to deal with the challenges that emerge in the new business environment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4220 - Entrepreneurial Growth and Strategy

3 hours Management of entrepreneurial ventures with an emphasis on application and integration. Students will learn about the stages of venture growth and development, key success factors, strategies and theoretical frameworks to make sense of and appreciate the challenges in sustaining and managing an entrepreneurial venture in a variety of contexts.

Prerequisite(s): MGMT 4100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4235 - Social Entrepreneurship

3 hours Introduces entrepreneurial concepts that can be used to stimulate entrepreneurial behavior in individuals for the benefit of communities. Students study best practices of not-for-profit enterprises and social venturing practices and learn how these enterprises launch and sustain their ventures. Primary focus is on equipping students with knowledge and skills that are needed to develop viable socially relevant organizations or to grow entrepreneurial initiatives in not-for-profit organizations. Course may include projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4270 - Sustainability Management

3 hours Explores the intersection of sustainability practice and business operations in the modern, global, corporate landscape. Designed to equip students with knowledge and tools to effectively integrate economic interests with sustainable practices to better promote long-term business viability.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4300 - Talent Acquisition and Management

3 hours Recruitment, selection and placement of employees in an organization. Test validation and other selection techniques relative to EEO, ADA and AAP laws. Recruiting, selecting and placing a culturally diverse work force.

Prerequisite(s): One of the following: MGMT 3860 or MGMT 3720/ MGMT 3721.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4335 - Technology and Innovation Management

3 hours Examines frameworks and concepts to understand technology and innovation management in businesses. Topics may include areas such as technology entrepreneurship, product and process innovation, innovation process theories, etc. Main focus is on equipping students with the skills and ability to manage, develop and expand technological innovation. May include projects and applied exercises.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4470 - Leadership

3 hours In-depth course on leadership. Students are provided practical tools and methods of leadership that apply to a variety of organizational structures. Students gain insights about their own personalities, skills, ethics, values and beliefs as they relate to leading others, and have the opportunity to discuss and debate a number of leadership topics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4660 - International Management Perspectives

3 hours A comprehensive framework is used to study the management of multinational operations in cross-cultural environments with a focus on the decisions that managers must make. Topics include strategic planning, organization, human resources, operations management, entrepreneurship and ethics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4710 - Family Entrepreneurship

3 hours Explores the unique managerial issues associated with family businesses, the dynamics and competitive positioning of family businesses, as well as their contribution to the economy. Emphasis on student application of material and on proposing solutions to problems in organization, management and succession in family business contexts. Topics may include family and business relationships, management and strategy issues unique to family businesses, succession and wealth management, nonfamily management recruitment and compensation, and harnessing new visions and innovations in leadership transitions.

Prerequisite(s): MGMT 3850.

Open to business and non-business majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4790 - Strategic Human Resource Management

3 hours Integrative course to prepare students to enter the human resources field as qualified professionals. Intensive review of the functional disciplines in the HR field are integral to the course. Students study and evaluate theories of human resources management; engage in practical applications of theory through participation with employers engaged in solving HR problems within their workplace or identifying HR needs; explore the pragmatic implications of the professional human resource certification process and what it means for HR professionals in the global economy during the 21st century; and demonstrate integrative knowledge of HR functions relative to each other and to other functional areas within an organization.

Prerequisite(s): MGMT 3860.

To be taken within the final 9 hours of course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4800 - Internship

3 hours Supervised work in a job related to student's career objective.

Prerequisite(s): Student must meet the employer's requirements and have consent of advisor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4840 - Strategic Rewards and Performance Management

3 hours Wage and salary administration in public and private organizations; determinants of general wage and salary levels and structures; total compensation systems; interrelationship among employee performance, intrinsic and extrinsic rewards, perceived equitable payments and employee satisfaction.

Prerequisite(s): MGMT 3860.

Open to non-business majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4860 - Organizational Design and Change

3 hours Organizational design is a primary management tool for organizing business processes and developing organizational capabilities. The course focuses on developing an understanding of

the basics of organizational design, how to utilize organizational design principles to manage change and how to keep the design aligned with the needs of the firm and the demands to which it must respond. The design and development effort includes study of organizational structures, the basic work patterns of the organization, organizational cultures, managerial roles and the use of teams.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4900 - Special Problems

3 hours Supervised study on a selected management topic. Typically requires a research paper and significant independent study.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4940 - Strategic Management

3 hours Enterprise management integrating the functional areas of business administration into a realistic approach to business problems; applying principles to complex problems at the executive level.

Prerequisite(s): Completion of all other business foundation courses with a grade of C or better and senior standing.

To be taken during the last term/semester of course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MGMT 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Manufacturing Engineering Technology

MFET 3110 - Machining Principles and Processes

3 hours (2;3) Machine tool manufacturing techniques emphasizing sequence of operations, cutting tool geometry, tooling systems, tool materials and performance characteristics, cutting forces, speeds, feeds, surface finish, horsepower calculation and cutting fluids.

Prerequisite(s): MATH 1650 with a grade of C or better or MATH 1710.

Corequisite(s): ENGR 3450.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MFET 4190 - Quality Assurance

3 hours Review of statistics and discussion of statistical process control (SPC). The study of quality management, including preproduction supplier, in-process and finished product quality; methods of statistical analysis and quality audits, costs and employee training.

Prerequisite(s): MATH 1720 or MATH 1830 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MFET 4200 - Engineering Cost Analysis

3 hours Principles and techniques for cost evaluation of engineering design including: labor, material, direct, indirect, fixed, variable costs, parametric cost estimation techniques, forecasting tools and techniques, time value of money, depreciation methods and taxes, replacement, breakeven and sensitivity analyses, evaluation of single and multiple projects alternatives, decision making considerations and introduction to business accounting .

Prerequisite(s): MATH 1720 or MATH 1830 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MFET 4210 - CAD/CAM System Operations

3 hours (2;3) CAD/CAM programming, compilation of generic tape files for N/C and CNC machine tools local N/C and CNC part programming and operational techniques, G codes and M codes.

Prerequisite(s): MFET 3110, ENGR 1304 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MFET 4220 - CNC Programming and Operation

3 hours (2;3) Local programming and operation of CNC machining and turning centers, including programming of fixed cycles; program troubleshooting, editing and optimizing; setting work coordinate system selections; and setting tool geometry offsets.

Prerequisite(s): MFET 4210 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Marketing

MKTG 2650 - Culture and Consumption

3 hours Critically examines how shifts in U.S. demography impact marketplace decisions. Focuses on first- and second-generation immigrant populations, and how these consumers' values, attitudes and lifestyles are reflective of their cultural identities and ensuing consumption behaviors. Examines the connection between cultural identity, including ethnic, gender and generational diversity, and its relationship to brand preference formation, retail patronage, and consumer dissonance.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3010 - Foundations of Selling and Communication

3 hours Selling fundamentals and communication techniques focused on securing and building customer-centered relationships in high-value, complex sales situations. Course utilizes the SPIN Selling methodology for sales call planning and execution with additional emphasis on critical thinking, problem-solving, verbal and nonverbal communication skills, written business communications, and persuasion. Sales and persuasion skills acquired in the course are useful in future job interview and career situations.

Open to all majors.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3650 - Foundations of Marketing Practice

3 hours An introductory survey of marketing terminology, concepts and practices from an applied perspective. Emphasis is on the activities performed by marketing managers to address real-world marketing problems. Primary emphasis is on the identification of marketing opportunities and the planning and execution of marketing mix activities required to target these opportunities. Marketing mix topics include development and management of products/services, price setting and management, supply chain and distribution channel management, and management of integrated marketing communications. Special emphasis is given to ethical, socially-responsible and sustainable decision-making and business practices.

Prerequisite(s): Junior standing. For Business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3651 - Foundations of Marketing Practice for Non-Business Majors

3 hours An introductory survey of marketing terminology, concepts and practices from an applied perspective. Emphasis is on the activities performed by marketing managers to address real-world marketing problems. Primary emphasis is on the identification of marketing opportunities and the planning and execution of marketing mix activities required to target these opportunities. Marketing mix topics include development and management of products/services, price setting and management, supply chain and distribution channel management, and management of integrated marketing communications. Special emphasis is given to ethical, socially-responsible and sustainable decision-making and business practices. Course is designated for non-business majors.

Prerequisite(s): For non-business majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3660 - Advertising Management

3 hours Advertising for careers in corporate brand management or agency account management; creation of primary demand, stimuli, promotional programs, media selection, appropriation and evaluation. Course focuses on strategic advertising input on goal setting, target audience segmentation and positioning, creative evaluation, budget allocation, media planning, and appropriate messaging across platforms including digital, public relations, direct marketing, and sales promotions.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3700 - Marketing Metrics

3 hours Calculate, understand, and interpret fundamental metrics or indicators of performance in marketing contexts. The pedagogical method is a hands-on analysis of mini-cases, problems and exercises, using hand calculation as well as computer worksheets.

Prerequisite(s): MKTG 3650 or MKTG 3651 (may be taken concurrently, but completion is recommended).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3710 - Marketing Research and Analytics

3 hours Market-research-based marketing decision-making (e.g., segmentation, targeting, positioning, and marketing planning) using qualitative and quantitative analysis techniques. Enhance knowledge and skills in data-based decision-making, qualitative and quantitative analysis, statistic, and marketing intelligence in the context of marketing application. Uses hands-on experiential learning methods to impart and strengthen the required skills and knowledge.

Prerequisite(s): DSCI 3710, MKTG 3650 or MKTG 3651, and MKTG 3700 (must be completed with a grade of C or higher prior to enrolling in MKTG 3710).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3720 - Digital Marketing Fundamentals

3 hours Students are expected to garner an appreciation for the role of digital technologies - including the internet, mobile devices, display marketing and other emerging technologies - for creating competitive advantages in the global marketplace. Reviews concepts and methods pertinent to digital marketing, including the evolution of some key technologies and methods, and their importance in the role of marketing.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3881 - Personal Professional Development

1 hour Emphasis is on career development including preparation of professional resumes, developing interviewing skills and utilizing UNT placement office facilities and services. Guest speakers from various industrial settings familiarize students with professional opportunities in marketing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4120 - Consumer Behavior

3 hours A survey of individual and organizational decision-making in the acquisition, consumption and disposition of goods and services, with selected applications in market segmentation, marketing communications, and marketing management. Topics include consumer and organizational behavior models and decision processes; internal influencing forces of motivation, perception, learning, personality, lifestyle and attitudes; external influencing forces of culture, subculture, demographic, social class, reference groups, and households.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4280 - Global Marketing Issues and Practice

3 hours Students examine marketing decision-making in an international context. Course emphasizes issues and concepts relevant to firms competing in the global marketplace, including problems and opportunities arising from the economic, legal/political, sociocultural, geographic and technological environments. Specific topics include multinational distribution, international product adaptation and cross-cultural consumer behavior. Requires a project emphasizing using and refining secondary data collection skills. Students may be required to work in a group context.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4330 - Strategic Brand Management

3 hours Course concentrates on strategic and operational issues related to brand management—an important aspect of marketing management—its integration in the organization, management of a brand portfolio, environmental scanning, creation and delivery of consumer value, budgeting, planning, and control issues. Specific topic areas include research, data management, analyses for planning and decision-making. Additional topics include decisions concerning product/service offerings, pricing, communication (advertising, sales promotion, sponsorship, and publicity), channels, ethics, and global implications, among others.

Prerequisite(s): MKTG 3650 or MKTG 3651 and MKTG 3700 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4470 - Business-to-Business Marketing

3 hours Focuses on developing the concepts, skills and strategies needed to successfully compete in business environments where organizations rather than individual consumers are the customers. Emphasis is placed on specialized knowledge and tools for developing marketing and sales strategies in business-to-business markets. Topics include organizational buyer behavior, team selling, relationship marketing, business market segmentation and communication.

Prerequisite(s): Consent of department and MKTG 3650 or MKTG 3651.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4520 - Marketing Channels and Strategic Partnerships

3 hours An examination of strategic issues involved in managing marketing channels. Topics include channel design, supply chain management and the external channels environment. Marketing channel strategy is extended to the use of strategic alliances and other collaborative distribution relationships for global competitive advantage. Special attention is directed to resource and technology interdependencies, exchange governance and relationship benchmarking.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4570 - Professional Selling Analytics

3 hours Numbers-based approach to understanding and presenting solutions to provide customer value propositions. Students learn financial and economic principles to estimate demand, forecast trends and develop cost-effective solutions to customer needs. Students also learn how to use popular selling system and software solutions to optimize selling effectiveness, customer relationships, and time and territory management.

Prerequisite(s): Consent of department MKTG 3650 or MKTG 3651, MKTG 4470 and MKTG 4670.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4600 - Retailing

3 hours Principles and methods; store location and layout; sales promotion; buying and pricing; personnel management; credit; stock control.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4620 - E-Commerce Marketing Tools and Applications

3 hours Explores the evolution of the Internet and the Internet's ensuing role in marketing. Introduction to web design, web authoring and web-based marketing applications.

Prerequisite(s): MKTG 3650 or MKTG 3651.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4630 - Retailing II

3 hours Building on concepts from MKTG 4600, this course emphasizes an analytical perspective to evaluating and improving performance of retail entities. Topics include planning, allocation, buying, pricing and store productivity.

Prerequisite(s): MKTG 3650 or MKTG 3651; MKTG 4600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4670 - Advanced Professional Selling

3 hours Focuses on building lasting customer partnerships through advanced sales practices. Emphasis is placed on consultative selling strategies and joint problem-solving to create superior customer value. Students learn through a combination of classroom discussions, student presentations and sales call simulations.

Prerequisite(s): Consent of department, MKTG 3650 or MKTG 3651.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4770 - Sales Force Design and Management

3 hours Emphasis on designing and implementing a sales force strategy for complex business environments. Covers the responsibilities of sales executives, field sales managers and individual salespeople. Topics include sales force structure, multi-channel strategy, territory design and management, sales force compensation, motivation, leadership and mentoring. Also examines ethical and legal issues related to selling activities.

Prerequisite(s): Consent of department, MKTG 3650 or MKTG 3651, MKTG 4470 and MKTG 4670.

Open only to students admitted into the BBA in marketing with a

concentration in professional selling or the minor in professional selling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4800 - Internship in Marketing

3 hours Supervised work in a job related to the student's career objectives or equivalent.

Prerequisite(s): MKTG 3650 and departmental consent.

Course only available to MKTG Majors. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4805 - Internship in Professional Selling

1–3 hours Supervised work in a job related to the student's career objectives or equivalent.

Prerequisite(s): Consent of department, MKTG 3650 or MKTG 3651, MKTG 4470 and MKTG 4670.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling. The student must complete a minimum of 240 hours of work for internship credit (15 hours per week fall or spring; 24 hours per week summer). Graded.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4890 - Applied Marketing Problems

3 hours Capstone marketing course. Students work in team settings to analyze cases and develop a comprehensive marketing plan, requiring the integration of a wide range of marketing principles and practices. The cases, as well as the integrated marketing plan, require students to identify market opportunities and challenges, formulate actionable plans to address organizational strengths and weaknesses, and execute a marketing mix strategy. Requires both oral and written presentation of cases, as well as the marketing plan.

Prerequisite(s): MKTG 3650, MKTG 3700, MKTG 3710, FINA 3770 and graduating senior status.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

MKTG 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Materials Science and Engineering

MTSE 1100 - Discover How and Why Materials "Matter"

3 hours (2;0;1) Course serves as the heart of the MSE first year experience. Topics include rationale for materials choices, composition and design of everyday items and how materials science and engineering drives innovation. Basic analysis and experimental design. A team-based hands-on project teaches the student to think critically and creatively by applying a range of analysis techniques borrowed from many engineering and science disciplines.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 2000 - Stuff Matters: Materials and Civilization

3 hours Specifically designed for non-science and non-engineering students. Materials have defined the "age" in which we live throughout history, e.g. "Stone" age, "Bronze" age, "Iron" age, "Silicon" age. Materials breakthroughs and failures continue to shape our everyday lives. Students learn the basics of materials science: processing/structure/property/performance relationships. In-class and hands-on demonstrations, and guest lecturers. Students examine historical and contemporary issues for materials scientists. Materials such as metals and their alloys, ceramics, polymers and composites are discussed in context of our daily lives. Students work in teams to address modern materials issues.

Corequisite(s): MTSE 2002.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 2002 - Laboratory for Stuff Matters: Materials and Civilization

1 hour (1;3) Laboratory course to accompany MTSE 2000 Stuff Matters: Materials and Civilization.

Corequisite(s): MTSE 2000

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 2900 - Introduction to Materials Science Research

1–3 hours Individualized laboratory instruction. Students may begin training on laboratory research techniques.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 2910 - Introduction to Materials Science Research

1–3 hours Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3000 - Fundamentals of Materials Science and Engineering - I

3 hours Introduces the fundamentals of materials science and engineering, including atomic interactions, introduction of crystalline and non-crystalline structures, the concept of materials defects, the evolution of microstructure/structure, the influence of composition and processing on microstructure, and how composition and structure impact the properties of a wide variety of engineering materials.

Prerequisite(s): CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3001 - Fundamentals of Materials Science and Engineering - II

3 hours This course covers the following in detail: metal alloy processing and classification; ceramic structure, properties and processing; polymer processing and applications; composite material principles, classification, preparation and properties; corrosion degradation mechanisms, electrochemical reactions and protection methods; electrical properties of metals, semiconductors and dielectrics; thermal properties of metals and non-metals; magnetic material fundamentals, properties and applications; optical material fundamentals, properties and applications.

Prerequisite(s): MTSE 3000 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3003 - Fundamentals of Materials Science and Engineering Laboratory

1 hour Laboratory designed to introduce students to the fundamentals of materials science and engineering. Students gain hands-on experience with processing and characterization of metals, ceramics and polymers. Topics include optical metallography, tensile testing, hardness testing, impact testing, heat treating, melting and casting. Students perform experiments, analyze results, write reports and give presentations.

Corequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3010 - Bonding and Structure

3 hours Amorphous and crystalline structures in metals, ceramics and polymers, point defects in crystals, structure determination by X-ray diffraction.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3020 - Microstructure and Characterization of Materials

3 hours Introduction to dislocations, grain boundaries, surfaces and multiphase microstructures. Optical and electron microscopic characterization of microstructures.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3030 - Thermodynamics and Phase Diagrams

3 hours First three laws of thermodynamics; phase equilibria, reaction equilibria and solution theory. Principles and applications of phase diagrams.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3040 - Transport Phenomena in Materials

3 hours Principles of transport phenomena (momentum, heat and mass transport) in materials processes including heat, mass and momentum transport. Emphasis on applications of appropriate differential equations and boundary conditions to solve real materials processing problems.

Prerequisite(s): MATH 3410, MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3050 - Mechanical Properties of Materials

3 hours Macroscopic mechanical response of ceramics, metals, polymers and composite materials, with an introduction to the underlying microstructural processes during deformation and fracture. Geometrical considerations and size effects of structural components for mechanical testing; resultant stresses, strains and deflections of components.

Prerequisite(s): ENGR 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3060 - Phase Transformations in Materials

3 hours Principles of structural transformations in materials. Thermodynamics and kinetics of nucleation, growth, precipitation and martensitic reactions.

Prerequisite(s): MTSE 3010, MTSE 3030, MTSE 3040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3070 - Electrical, Optical and Magnetic Properties of Materials

3 hours Bonding and the electronic structure and properties of metallic, ceramic, semiconducting and polymeric materials.

Prerequisite(s): ENGR 3450 and MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3080 - Materials Processing

3 hours Basic principles and strategies for processing metals, ceramics, polymers, composites and electronic materials.

Prerequisite(s): MTSE 3040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3090 - Materials Science and Engineering Laboratory I

1 hour (0;1) Laboratory designed to introduce students to some of the most common materials testing and characterization methods. Topics include optical metallography, tensile testing, hardness testing, impact testing, heat treating, melting and casting.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3100 - Materials Science and Engineering Laboratory II

1 hour (0;1) Sequel laboratory designed to continue to introduce students to some of the most common materials testing and characterization methods. Topics include differential scanning calorimetry, rheology, powder processing and sintering, density, scanning electron microscopy and x-ray diffraction.

Prerequisite(s): MTSE 3090.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3110 - Materials Aspects of Quantum Mechanics

3 hours Provides a basic understanding of the materials aspects of quantum mechanics concepts as it applies to engineering students. Quantum mechanics was once mostly of interest to physicists and chemists. Nowadays, the concepts and techniques of quantum mechanics are essential in many areas of engineering and science such as materials science, nanotechnology, electronic devices and photonics. This course provides a substantial introduction to the materials aspects of quantum mechanics and its applications. It is specifically designed to be accessible to students and technical professionals over a wide range of engineering backgrounds.

Recommended: MATH 1710 and MTSE 3000; PHYS 1420 or PHYS 2220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3200 - Materials & Civilization

3 hours This course is specifically designed for non-materials science and engineering students. Materials have defined the “age” in which we live throughout history, e.g. “Stone” age, “Bronze” age, “Iron” age, “Silicon” age. Materials breakthroughs and failures continue to shape our everyday lives. In this course, students will learn the basics of materials science: processing/structure/property/performance relationships. This course involves in-class and hands-on demonstrations, and guest lecturers. Students will examine historical and contemporary issues for materials scientists. Materials such as metals and their alloys, ceramics, polymers and composites will be discussed in context of our daily lives. Students will work in teams to address modern materials issues.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4010 - Physical Metallurgy Principles

3 hours Physical metallurgy principles with a focus on understanding structure-property relationships in metals and alloys. Topics include structure, dislocations, mechanical behavior, grain boundaries, annealing, recrystallization, grain growth, diffusion, phase diagrams, transformations, strengthening mechanisms, fatigue, creep and fracture. Emphasis on the basic structure-property-processing relationships in metals and how they differ from other material classes.

Prerequisite(s): MTSE 3010, MTSE 3030, MTSE 3040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4020 - Materials in Medicine

3 hours Science and engineering of materials having medical applications. Provides students with an understanding of the challenges that materials (metals, polymers and ceramics) face/create during short- and long-term contact with mammalian physiology. Develops the student’s understanding of the relationships controlling acceptance or failure of a given material in the body. Exposes students to strategies used in current and future biomaterials.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4030 - Ceramic Science and Engineering

3 hours Emphasis on structure-property relationships: chemical bonding, crystal structures, crystal chemistry, electrical properties, thermal behavior, defect chemistry. Processing topics: powder preparation, sol-gel synthesis, densification, toughening mechanisms. Materials topics: glasses, dielectrics, superconductors, aerogels.

Prerequisite(s): MTSE 3010, MTSE 3020, MTSE 3040.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4040 - Computational Materials Science

3 hours Introduction to the basic principles used to simulate, model and visualize the structure and properties of materials. Topics include the various methods used at different length and time scales ranging from the atomistic to the macroscopic.

Prerequisite(s): MTSE 3010, MTSE 3030, MATH 3410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4050 - Polymer Science and Engineering

3 hours Chemical structures, polymerization, molar masses, chain conformations. Rubber elasticity, polymer solutions, glassy state and aging. Mechanical properties, fracture mechanics and viscoelasticity. Dielectric properties. Polymer liquid crystals. Semi-crystalline polymers, polymer melts, rheology and processing. Thermal analysis, microscopy, diffractometry and spectroscopy of polymers. Computer simulations of polymer-based materials.

Prerequisite(s): MTSE 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4060 - Materials Selection and Performance

3 hours Integration of structure, properties, processing and performance principles to formulate and implement solutions to materials engineering problems.

Prerequisite(s): MTSE 3030, MTSE 3040, MTSE 3050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4070 - Electronic Materials

3 hours Intensive study of electronic, optical and magnetic properties of materials with an emphasis on the fundamental physics and chemistry associated with these material systems.

Prerequisite(s): MTSE 3000, MATH 3410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4090 - Senior Design I

3 hours Provides students with experience in “real world” engineering design that draws on many of the skills that have been mastered during their studies in the Department of Materials Science and Engineering at the University of North Texas. Students exhibit an ability to design a system, component or process to meet a desired need. Two-course sequence with the first course (this course, MTSE 4090) providing the preliminary work required to complete a design project (determining project scope, technical background and literature review, planning a project, considering safety, environmental and ethics in design, preliminary design and presenting design work both orally and in writing).

Prerequisite(s): MTSE 3010, MTSE 3020, MTSE 3030, MTSE 3040, MTSE 3050, MTSE 3070, MTSE 3080.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4100 - Senior Capstone Project

3 hours Provides every student with experience in "real world" engineering design that draws on many of the skills that have been mastered during their studies in the Department of Materials Science and Engineering at the University of North Texas. Students will exhibit an ability to design a system, component or process to meet a desired need. Two-course sequence with the second course (this course, MTSE 4100) providing time for completion of a design project setup during the first course (evaluating the project plan from last semester, performing work toward completion of project, and presenting progress of work both orally and in writing).

Prerequisite(s): MTSE 4090.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4110 - Metal Additive Manufacturing: Processes and Materials Science Fundamentals

3 hours Additive manufacturing is the formalized term for what used to be called rapid prototyping and what is now popularly called 3D Printing. This course will emphasize the fundamentals of additive manufacturing processes focusing on metals. The broad range of additive manufacturing processes, devices, capabilities and materials that are available will be discussed in this course. The course will also cover some basics of solidification, solid-solid phase transformations, and the broad physical metallurgy associated with AM processes.

Recommended: MTSE 3000 or equivalent. May be taken concurrently.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4120 - Micro-electro-mechanical-systems (MEMS): Materials, Devices and Applications

3 hours (2;1) This course is designed to provide an introduction to conventional micro-electro-mechanical systems (MEMS), where the course starts with an overview of the semiconducting properties of silicon, the workhorse of the microelectronics industry. The impact of continued miniaturization on transistor performance is highlighted according to Moore's Law. Moving from Silicon as an electronic material, its mechanical properties are discussed which has been pivotal in the creation of the field of MEMS. A review of microfabrication technology conventionally used to form MEMS structures and devices using batch-fabrication is provided, which includes topics such as: photolithography, etching, physical vapor deposition, chemical vapor deposition, surface micromachining and bulk micromachining. Soft materials and thick film processes are also discussed that have been key enablers for microfluidics and BioMEMS. The practical applications of MEMS for sensors and actuators are highlighted, where electrostatic, thermal, piezoelectric and magnetic transduction schemes are used for actuation and sensing, including for RF wireless systems and bio-related applications for Lab-on-Chip (LOC). Students will gain a broad perspective in the area of miniaturized systems for sensors and actuators. The laboratory modules are intended to reinforce the concepts discussed in the lectures, with practical hands-on learning exercises. The lectures and accompanying lab modules will help cultivate interdisciplinary perspectives with hands-on exercises developed for the students.

Recommended: PHYS 1710. CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435 or equivalent.

May not be counted toward a major or minor in Materials Science and Engineering.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4130 - Introduction to Tribology and Lubrication

3 hours Friction, wear and lubrication; surface properties and surface topography; friction of surfaces in contact; wear and surface failures; biotribology; boundary lubrication; fluid properties; hydrodynamic lubrication; bearing selection; introductory micro- and nanotribology.

Recommended: PHYS 1710, CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4500 - Internship in Materials Science

3 hours Supervised industrial internship requiring a minimum of 150 hours of work experience.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4580 - Materials for a Sustainable Environment

3 hours Properties of renewable and nonrenewable, sustainable and non-sustainable materials, effects of product application and needs on material choices for a sustainable environment; degradation mechanisms; and influence of the environment on mechanisms.

Prerequisite(s): PHYS 1710/PHYS 1730, MATH 1710. CHEM 1415 or equivalent or CHEM 1410/CHEM 1430.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4620 - Scanning Electron and Ion Microscopy

3 hours Introduction to the theoretical and applied aspects of scanning electron and ion microscopy. Introduces a variety of analytical techniques that may be exploited when characterizing engineering materials using scanning electron and ion microscopes, including imaging, energy dispersive X-ray microanalysis, electron backscattered diffraction and focused ion beam techniques.

Prerequisite(s): MTSE 3000 and MTSE 3020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4900 - Special Topics in Materials Science and Engineering

1–3 hours Lectures, laboratory or other experiences covering specially selected topics in materials science and engineering.

Prerequisite(s): MATH 1710, CHEM 1410/CHEM 1430.

May be repeated as topics vary. Maximum of 8 credits allowed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4910 - Materials Science Research

1–3 hours Introduction to research; may consist of an experimental, theoretical or review topic.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4920 - Cooperative Education in Materials Science

3 hours Supervised work in a job directly related to the student's major, professional field of study or career objectives.

Prerequisite(s): 12 hours of credit in materials science; student must meet employer's requirements and have consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MTSE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Mathematics

MATH 340 - Integrated Pre and Beginning Algebra

4 hours (5;0;0) General overview of basic arithmetic and beginning algebra: fractions, decimals, percentages, integers, solving equations, linear equations, graphing and polynomials.

Prerequisite(s): TSI incomplete.

Students may not enroll in this course if they have credit for any other UNT mathematics course. Credit in this course does not fulfill any degree requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 350 - Beginning Algebra

3 hours The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving.

Prerequisite(s): TSI incomplete.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 1100 - Algebra

(MATH 1314 or MATH 1414)

3 hours (3;0;2) Designed to build technical proficiency in algebra for students who will need strong algebra skills in a higher level mathematics course. Study of polynomial, radical, rational, logarithmic and exponential functions with applications; building functions from data; systems of equations. Note that MATH 1100 at UNT does not satisfy the mathematics component of the core curriculum. Students who feel they acquired solid algebra skills in high school are strongly encouraged to take the mathematics placement exam to begin in a higher-level mathematics course.

Prerequisite(s): TSI complete

A grade of C or better in MATH 1100 is required when MATH 1100 is a prerequisite for other mathematics courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1180 - College Math for Business, Economics, Life Sciences, and Related Fields

(MATH 1324)

3 hours (3;0;1) Topics from algebra (linear equations, quadratic equations, functions and graphs, inequalities), mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations, applications to management, economics and business.

Prerequisite(s): TSI complete.

A grade C or better in MATH 1180 is required when MATH 1180 is a prerequisite for other mathematics courses.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 1190 - Business Calculus

(MATH 1325)

3 hours Differential and integral calculus with emphasis on applications to business.

Prerequisite(s): Two years of high school algebra and consent of department; or MATH 1100 or MATH 1180 with a grade of C or better.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1350 - Mathematics for Elementary Education Majors I

(MATH 1350)

3 hours Concepts of sets, functions, numeration systems, different number bases, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking.

Prerequisite(s): MATH 1100 or MATH 1180 with a grade of C or better.

Only for students requiring course for teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 1351 - Mathematics for Elementary Education Majors II

(MATH 1351)

3 hours Concepts of geometry, probability and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking.

Prerequisite(s): MATH 1350.

Only for students requiring course for teacher certification.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 1580 - Survey of Mathematics with Applications

(MATH 1332)

3 hours Topics include probability, statistics, algebra, logic and the mathematics of finance. Additional topics are selected from geometry, sets, cryptography, fair division, voting theory and graph theory. Emphasis is on applications. Recreational and historical aspects of selected topics are also included. Technology is used extensively. MATH 1580 is not intended to prepare students for calculus, science, engineering or business courses.

Prerequisite(s): TSI complete.

Students may not receive credit for both MATH 1580 and MATH 1581X .

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1600 - Trigonometry

(MATH 1316)

3 hours Trigonometry based on both right triangles and the unit circle: graphs of trigonometric functions; inverse trigonometric functions; trigonometric identities and equations; laws of sines and cosines; polar coordinates; DeMoivre's theorem; vectors.

Prerequisite(s): MATH 1100 with a grade of C or better.

MATH 1600 and MATH 1610 together cover approximately the same material as MATH 1650. Students who already have credit for MATH 1650 may not receive credit for MATH 1600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 1610 - Functions, Graphs and Applications

3 hours Preparatory course for calculus: algebra and graphs of functions; properties and graphs of polynomials and rational functions; graphs and applications of exponential and logarithmic functions; applications of trigonometric functions and graphs; sequences, series and their applications.

Prerequisite(s): A grade of C or better in MATH 1600.

MATH 1600 and MATH 1610 together cover approximately the same material as MATH 1650. Students who already have credit for MATH 1650 may not receive credit for MATH 1610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 1650 - Pre-Calculus

(MATH 2312 or MATH 2412)

5 hours Preparatory course for calculus: trigonometric functions, their graphs and applications; sequences and series; exponential and logarithmic functions and their graphs; graphs of polynomial and rational functions; general discussion of functions and their properties.

Prerequisite(s): A grade of B or better in MATH 1100.

MATH 1650 covers approximately the same material as MATH 1600 and MATH 1610 together. Students who already have credit for both MATH 1600 and MATH 1610 may not receive credit for MATH 1650.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 1680 - Elementary Probability and Statistics

(MATH 1342)

3 hours (3;1) Introductory course to serve students of any field who want to apply statistical inference. Descriptive statistics, elementary probability, estimation, hypothesis testing and small samples.

Prerequisite(s): TSI complete.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1710 - Calculus I

(MATH 2313 or MATH 2413)

4 hours (3;0;2) Limits and continuity, derivatives and integrals; differentiation and integration of polynomial, rational, trigonometric and algebraic functions; applications, including slope, velocity, extrema, area, volume and work.

Prerequisite(s): A grade of B or better in MATH 1610, or a grade of B or better in MATH 1650.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1720 - Calculus II

(MATH 2314 or MATH 2414)

3 hours (3;0;2) Differentiation and integration of exponential, logarithmic and transcendental functions; integration techniques; indeterminate forms; improper integrals; area and arc length in polar coordinates; infinite series; power series; Taylor's theorem.

Prerequisite(s): A grade of B or better in MATH 1710.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1810 - Calculus for Science and Engineering I

3 hours (3;0;1) Limits and continuity, definition of derivative, tangent lines, power, product, quotient and chain rules, implicit differentiation, linear approximation, related rates, maxima and minima, applications to graphing, optimization, Newton's method.

Prerequisite(s): Grade of A, B, or C in MATH 1650, or grade of A, B or C in both MATH 1600 and MATH 1610.

Core Category: Mathematics
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1820 - Calculus for Science and Engineering II

3 hours (3;0;1) Riemann sums, definite integrals, areas, volumes of rotation, applications of integration, differentiation and integration of exponential, logarithmic and transcendental functions, indeterminate forms, L'Hôpital's rule.

Prerequisite(s): Grade of A, B, or C in MATH 1810, or grade of A, B, or C in MATH 1710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 1830 - Calculus for Science and Engineering III

3 hours (3;0;1) Techniques of integration, numerical integration, improper integrals, parametric curves, polar coordinates, convergence of sequences, convergence of series, power series, Taylor and McLaurin series, and applications.

Prerequisite(s): Grade of A, B, or C in MATH 1820.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 2000 - Discrete Mathematics

(MATH 2305)

3 hours Introduction to proof-writing, logic, sets, relations and functions, induction and recursion, combinatorics and counting techniques, discrete probability, and graphs.

Prerequisite(s): MATH 1710 or MATH 1810 (may be taken concurrently by math majors).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction

3 hours In-depth study of topics in secondary school mathematics. Emphasis is on modeling with linear, exponential and trigonometric functions; curve fitting; discrete and continuous models. Exploratory work with presentations of findings is an integral part of the course. Pedagogical uses of appropriate technology are explored.

Prerequisite(s): MATH 1710, MATH 1720 (may be taken concurrently) or MATH 1810, MATH 1820, MATH 1830 (may be taken concurrently), TNTX 1100 (may be taken concurrently), or consent of the Teach North Texas advisor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

MATH 2700 - Linear Algebra and Vector Geometry

(MATH 2318 or MATH 2418)

3 hours Vector spaces over the real number field; applications to systems of linear equations and analytic geometry in En, linear transformations, matrices, determinants and eigenvalues.

Prerequisite(s): A grade of C or higher in MATH 1720.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 2730 - Multivariable Calculus

(MATH 2315 or MATH 2415)

3 hours Vectors and analytic geometry in 3-space; partial and directional derivatives; extrema; double and triple integrals and applications; cylindrical and spherical coordinates.

Prerequisite(s): Grade of A, B, or C in either MATH 1720 or MATH 1830.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 2910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by freshman or sophomore honors students under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 3000 - Real Analysis I

3 hours Introduction to mathematical proofs through real analysis. Topics include sets, relations, types of proofs, continuity and topology of the real line.

Prerequisite(s): Grade of A, B, or C in either MATH 1720 or MATH 1830. Grade of A, B, or C in MATH 2000. Students who are neither mathematics nor interdisciplinary studies majors must contact a mathematics advisor at <MathAdvising@unt.edu> prior to registering for Math 3000."

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 3010 - Seminar in Problem-Solving Techniques

1 hour Problem-solving techniques involving binomial coefficients, elementary number theory, Euclidean geometry, properties of polynomials and calculus.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 3021 - Seminar for SOA Exam I/Probability

1 hour Seminar to prepare students for the Probability exam administered by the Society of Actuaries.

Prerequisite(s): MATH 2730 and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 3022 - Seminar for SOA Exam 2/Financial Mathematics

1 hour Seminar to prepare students for the Financial Math exam administered by the Society of Actuaries.

Prerequisite(s): MATH 1720 or MATH 1830, FINA 3770 and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 3180 - Probability for Engineers

3 hours Fundamental course in probability for engineering students. Covers classical probability tools, including counting rules, multiplication and additional rules, Bayes theorem, conditional probability, and independence, both discrete and continuous case of single/multiple random variables and their probability distributions, and Gaussian random vectors.

Prerequisite(s): MATH 2700 and MATH 2730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 3350 - Introduction to Numerical Analysis

3 hours (3;1) Description and mathematical analysis of methods used for solving problems of a mathematical nature on the computer. Roots of equations, systems of linear equations, polynomial

interpolation and approximation, least-squares approximation, numerical solution of ordinary differential equations.

Prerequisite(s): MATH 2700. Computer programming ability.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 3370 - Probability Models

3 hours

Probability rules, counting methods, discrete and continuous random variables, Markov chains, limit theorems, and applications in the sciences and engineering.

Prerequisite(s): MATH 1710 with a grade of C or better; or MATH 1820 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

MATH 3400 - Number Theory

3 hours Factorizations, congruencies, quadratic reciprocity, finite fields, quadratic forms, diophantine equations.

Prerequisite(s): MATH 3000 or MATH 2000 or CSCE 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

MATH 3410 - Differential Equations I

3 hours First-order equations, existence-uniqueness theorem, linear equations, separation of variables, higher-order linear equations, systems of linear equations, series solutions and numerical solutions.

Prerequisite(s): Grade of A, B, or C in either MATH 1720 or MATH 1830. MATH 2700 recommended (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

MATH 3420 - Differential Equations II

3 hours Ordinary differential equations arising from partial differential equations by means of separation of variables; method of characteristics for first-order PDEs; boundary value problems for ODEs; comparative study of heat equation, wave equation and Laplace's equation by separation of variables and numerical methods; further topics in numerical solution of ODEs.

Prerequisite(s): MATH 2730, MATH 3410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

MATH 3510 - Abstract Algebra I

3 hours Groups, rings, integral domains, polynomial rings and fields.

Prerequisite(s): MATH 3000; MATH 2700 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 3610 - Real Analysis II

3 hours Continuation of MATH 3000. Topics include derivatives, integrals, and limits of sequences of functions.

Prerequisite(s): MATH 3000 and MATH 2700 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 3740 - Vector Calculus

3 hours Theory of vector-valued functions on Euclidean space. Derivative as best linear-transformation approximation to a function. Divergence, gradient, curl. Vector fields, path integrals, surface integrals. Constrained extrema and Lagrange multipliers. Implicit function theorem. Jacobian matrices. Green's, Stokes', and Gauss' (divergence) theorems in Euclidean space. Differential forms and an introduction to differential geometry.

Prerequisite(s): MATH 2700, MATH 2730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 3850 - Mathematical Modeling

3 hours Difference equations, dynamical systems, proportionality, model fitting, experimental modeling, simulation modeling, probabilistic modeling, optimization, dimensional analysis, modeling using graph theory.

Prerequisite(s): MATH 1720 or MATH 1830.

Corequisite(s): MATH 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 3860 - Financial Mathematics

3 hours The mathematical theory of interest with applications to investments and corporate finance. Topics include present and future values; annuities and variable cash flows; yield rates; amortization schedules; loans; valuation of stocks, bonds and other securities; and the assessment of corporate financial performance using standard financial methods.

Prerequisite(s): Grade of A, B, or C in either MATH 1720 or MATH 1830. STAT 3680 (may be taken concurrently) and FINA 3770 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

MATH 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4010 - Introduction to Mathematical Logic

3 hours Introduction to the syntax and semantics of propositional logic and first-order logic. Topics include quantifier elimination, compactness and completeness theorems, Craig's interpolation theorem, elementary sub-models, partial recursive functions, Gödel numbering, decidability of theories, Peano arithmetic, Robinson's system and Gödel's incompleteness theorems.

Prerequisite(s): MATH 3000. MATH 3510 or MATH 3610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4050 - Advanced Study of the Secondary Mathematics Curriculum

3 hours Study of mathematical topics in the secondary curriculum from an advanced viewpoint. Discussion of the relationship between secondary and collegiate curricula. Combinatorics. The Euclidean algorithm, congruence classes, and prime factorization. Modeling with differential equations. Conic sections. Pedagogical techniques.

Prerequisite(s): MATH 2100 and MATH 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 4060 - Foundations of Geometry

3 hours Selections from synthetic, analytic, projective, Euclidean and non-Euclidean geometry.

Prerequisite(s): MATH 3000.

Prior or concurrent enrollment in MATH 3510 or MATH 3610 is strongly recommended.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

MATH 4080 - Differential Geometry

3 hours Curves, isometries, Frenet formulas, differential forms, covariant derivative, surfaces, the first fundamental form, curvature of surfaces, Gaussian curvature and the Gaussian map, geodesics, minimal surfaces, Gauss-Bonnett theorem.

Prerequisite(s): MATH 2700, MATH 2730, and MATH 3000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

MATH 4100 - Fourier Analysis

3 hours Application-oriented introduction to Fourier analysis, including Fourier series, Fourier transforms, discrete Fourier transforms, wavelets, orthogonal polynomials and the Fast Fourier Transform (FFT) algorithm. The theoretical portions of the course emphasize interconnections and operator algebraic formalism. Applications are chosen from among differential equations, signal processing, probability and high precision arithmetic.

Prerequisite(s): MATH 1720 or MATH 1830, MATH 2700. MATH 2730 and MATH 3410 are recommended (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

MATH 4200 - Dynamical Systems

3 hours One-dimensional dynamics. Sharkovskii's theory, routes to chaos, symbolic dynamics, higher-dimensional dynamics, attractors, bifurcations, quadratic maps, Julia and Mandelbrot sets.

Prerequisite(s): MATH 3610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4430 - Introduction to Graph Theory

3 hours Introduction to combinatorics through graph theory. Topics introduced include connectedness, factorization, Hamiltonian graphs, network flows, Ramsey numbers, graph coloring, automorphisms of graphs and Polya's Enumeration Theorem. Connections with computer science are emphasized.

Prerequisite(s): MATH 3000 or MATH 2000 or CSCE 2100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

MATH 4450 - Introduction to the Theory of Matrices

3 hours Congruence (Hermitian); similarity; orthogonality, matrices with polynomial elements and minimal polynomials; Cayley-Hamilton theorem; bilinear and quadratic forms; eigenvalues.

Prerequisite(s): MATH 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

MATH 4500 - Introduction to Topology

3 hours Point set topology; connectedness, compactness, continuous functions and metric spaces.

Prerequisite(s): MATH 3610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

MATH 4510 - Abstract Algebra II

3 hours Topics from coding theory, quadratic forms, Galois theory, multilinear algebra, advanced group theory, and advanced ring theory.

Prerequisite(s): MATH 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

MATH 4520 - Introduction to Functions of a Complex Variable

3 hours Algebra of complex numbers and geometric representation; analytic functions; elementary functions and mapping; real-line integrals; complex integration; power series; residues, poles, conformal mapping and applications.

Prerequisite(s): MATH 2730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 4610 - Probability

3 hours Combinatorial analysis, probability, conditional probability, independence, random variables, expectation, parameterized distributions, limit theorems, joint distributions, conditional distributions, and correlation.

Prerequisite(s): MATH 2730 and either STAT 3680 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

MATH 4810 - Bioinformatics Algorithms

3 hours (3;9;1) Introduction to computational problems inspired by the life sciences and overview of the algorithms behind the bioinformatics tools. Exposure to fundamental algorithmic concepts underlying sequence data in computational molecular biology. Formulate biological problems as computational problems and implement algorithms to solve these problems efficiently. Topics include methods to compute sequence alignments (dynamic programming algorithm), motif finding (randomized algorithms), DNA sequence assembly (graph algorithms), protein sequencing data analysis (brute force algorithms), and sequence data analysis (suffix trees and hidden Markov models).

Prerequisite(s): CSCE 3850 or CSCE Departmental Consent for non-CSE majors by filling out the Enrollment Assistance request form at www.cse.unt.edu/overrides.

Same as BIOL 4810 and CSCE 4810.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

MATH 4815 - Bioinformatics

3 hours Introduction to the interdisciplinary field of bioinformatics. Databases and genome browser tools. Methods and algorithms for biological sequence analysis. Applications to problems in biology or medicine.

Prerequisite(s): Consent of department.

CSCE 4815.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

MATH 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

Mechanical and Energy Engineering

MEEN 1000 - Discover Mechanical and Energy Engineering

2 hours Introductory course in Mechanical and Energy Engineering (MEE). Topics include experiences of practicing engineers; engineering ethics, professional conduct and values; and an introduction to the principle disciplines of MEE taught through a hands-on energy-concentrated project.

Prerequisite(s): MATH 1650 (with grade of C or better) or MATH 1710 with a grade of C or better.

Required for the BS degree in mechanical and energy engineering at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 1110 - Mechanical and Energy Engineering Practice I

1 hour Introduction to the practice of mechanical and energy engineering, applications of the subject, presentation of the work of the faculty and practicing engineers, seminars on “real world” projects, ethics and professional orientation.

Prerequisite(s): MATH 1650 or the equivalent (with a grade of C or better) or concurrent enrollment in MATH 1710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 1210 - Mechanical and Energy Engineering Practice II

1 hour Continuation of MEEN 1110. Applications of mechanical and energy engineering, presentations by faculty and practicing engineers, professional orientation, professional ethics.

Prerequisite(s): MATH 1650 (with a grade of C or better).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2110 - Engineering Data Analysis

3 hours Designed for engineering students to use statistical methods for engineering problem solving. Discusses using techniques for the analysis of experimental data and interpretation of problems related to mechanical and energy engineering. Statistical techniques used include analysis of variance, hypothesis testing, factorial design, linear regression and correlation.

Prerequisite(s): MATH 2700 with a grade of C or better; MEEN 1000 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2130 - Statics and Dynamics

4 hours Statics of particles and rigid bodies. Concepts of force, moments, free body diagrams, equilibrium and friction with engineering applications. Kinematics and kinetics of particles and rigid bodies. Energy and impulse momentum methods applied to particles and rigid bodies. Plane motion of rigid bodies and force analysis of linkages.

Prerequisite(s): MATH 1720, PHYS 1710, PHYS 1730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2210 - Thermodynamics I

3 hours Zeroth, first and second laws of thermodynamics with applications to engineering and energy conversion, open and closed systems, thermodynamic properties of simple substances, equations of state, thermodynamic properties of mixtures, psychrometrics and psychrometric charts.

Prerequisite(s): MATH 1720 or MATH 1830 with a grade of C or better; PHYS 1710 with a grade of C or better; MEEN 1000 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2240 - Programming for Mechanical Engineers

3 hours Introduces engineering students to problem solving, algorithm development and programming in MATLAB and Simulink. Examples of applications in mechanical engineering are given. Interactive course taught in a computer classroom.

Prerequisite(s): MEEN 1000 with a grade of C or better.

Corequisite(s): MATH 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2250 - Computer Aided Engineering

3 hours (2;3) Computational techniques applied to engineering analysis, design and technical visual communication for engineering practice. Contains two interrelated modules: computer aided design (CAD) and numerical methods (NM). The CAD module surveys engineering drawing techniques with emphasis on modern computer-driven solid object parametric modeling. The NM module includes constrained and unconstrained optimization, simulation and solution of simple differential equations, symbolic manipulation and application of finite element analysis.

Prerequisite(s): MATH 2700 (with a grade of C or better) and CSCE 1020 (with a grade of C or better).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2301 - Mechanics I

3 hours Basic concepts of forces in equilibrium and how to apply them to engineering systems. Distributed forces and loads. Frictional forces. Inertial properties. Equilibrium of particles and finite sized bodies. Bending moments in beams.

Prerequisite(s): PHYS 1710 and PHYS 1730 with a grade of C or better; MEEN 1000 with a grade of C or better .

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2302 - Mechanics II

3 hours Formulate and solve problems that involve forces that act on bodies which are moving. Understand kinematics and kinetics of particles and rigid bodies in two and three dimensions; equations of motion; motion relative to rotating coordinate systems. Understand the energy conservation principles.

Prerequisite(s): MEEN 2301 or ENGR 2301 with a grade of C or better; MATH 1720 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2332 - Mechanics III

3 hours Basic concepts of stress and strains. The influence of loading direction and location on the deformation of structures. Understand the impact of loads on designs. Understand failure criteria for designs.

Prerequisite(s): MEEN 2301 or ENGR 2301 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2900 - Special Problems in Mechanical and Energy Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems.

Prerequisite(s): Consent of instructor.

Each course may be repeated for 6 credit hours. For elective credit only; may not be substituted for required MEEN courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2910 - Special Problems in Mechanical and Energy Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems.

Prerequisite(s): Consent of instructor.

Each course may be repeated for 6 credit hours. For elective credit only; may not be substituted for required MEEN courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3100 - Manufacturing Processes

3 hours (2;3) Major manufacturing processes, their capabilities, analysis and economics. Study of the fundamentals of engineering processes in manufacturing as related to design and production and materials properties. Traditional and non-traditional manufacturing process and selection optimization. Students are given laboratory assignments in material removal, forming, casting, joining, forging and computer-aided machining.

Prerequisite(s): MEEN 2332 or ENGR 2332, with a grade of C or better (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3110 - Thermodynamics II

3 hours Introduction to steam and gas cycles, improvements on cycles, advanced thermodynamics cycles, psychrometrics and psychrometric charts, chemical reactions and chemical equilibria, combustion, flame temperature.

Prerequisite(s): MEEN 2210 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3111 - Thermodynamics Laboratory

1 hour (0;3) Designed for third-year mechanical and energy engineering students to enable mastery of basic experimental skills in thermodynamics. Students are expected to demonstrate the capability of performing various levels of engineering measurements with reasonable accuracy. The lab course covers the following topics: basic knowledge in measurements and uncertainty analysis; thermodynamics; power generation cycle; air conditioning (HVAC); refrigeration; data acquisition and LabVIEW.

Prerequisite(s): MEEN 2210 with a grade of C or better.

Corequisite(s): MEEN 3110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3120 - Fluid Mechanics

3 hours Fundamental concepts and properties of fluids; hydrostatics; basic equations of fluid flow in differential and integral form. Dimensional analysis, potential and viscous flow. Viscous boundary layers, pipe flow, turbulence and fluid flow correlations for objects of simple shape.

Prerequisite(s): MATH 2730, MATH 3410, MEEN 2210 and MEEN 2332 or ENGR 2332 all with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3121 - Fluid Mechanics Laboratory

1 hour (0;3) Designed for third-year mechanical and energy engineering students to enable mastery of basic experimental skills in fluid mechanics. Students are expected to demonstrate the capability of performing various levels of engineering measurements with reasonable accuracy. The lab course covers the following topics: viscosity; velocity; flow around blunt body; drag; boundary layer; and internal flow.

Prerequisite(s): MATH 2730, MATH 3410, MEEN 2210 and MEEN 2332 all with a C or better.

Corequisite(s): MEEN 3120.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3125 - Thermal Engineering Projects

2 hours (0;6) Project component of the thermal science courses in the curriculum. Students work in teams to complete engineering practice projects. The theoretical aspects of this course are given in MEEN 2210, MEEN 3110 and MEEN 3120.

Prerequisite(s): MEEN 2210 with a grade of C or better.

Corequisite(s): MEEN 3110, MEEN 3120.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3130 - Machine Elements

3 hours Applications of the principles of mechanics and mechanics of materials to machine design. The elements of machines are analyzed in terms of their dynamic behavior. Selection and sizing of machine elements. Students use the finite element technique for the analysis of machines and their components.

Prerequisite(s): ENGR 1304 with a grade of C or better; MEEN 2332 or ENGR 2332 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3135 - Mechanical and Energy Engineering Projects

3 hours (1;6) Project component of the thermal and solid mechanics courses in the curriculum. Students work in teams to complete engineering practice projects. Practical manufacturing theories and practices are covered. Students are trained to use various manufacturing tools including milling, drilling, cutting and welding machines during the lab hours.

Prerequisite(s): MEEN 2210, MEEN 2332 or ENGR 2332 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3210 - Heat Transfer

3 hours Basic concepts of steady and unsteady conduction. Elements of radiation. Black and gray body radiation. F-factor analysis. Thermal boundary layers, convection, heat transfer correlations. Combined modes of heat transfer. Simple heat exchange devices and systems.

Prerequisite(s): MEEN 3120; MEEN 3110; MEEN 3250 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3211 - Heat Transfer Laboratory

1 hour (0;3) Designed for third-year mechanical and energy engineering students to enable mastery of basic experimental skills in heat transfer. Students are expected to demonstrate the capability of performing various levels of engineering measurements with reasonable accuracy. The lab course covers the following topics: thermal conductivity; extended heat transfer around fin; transient conduction; natural convection and radiation; forced convection and radiation.

Prerequisite(s): MEEN 3120; MEEN 3110; MEEN 3250 all with a grade of C or better.

Corequisite(s): MEEN 3210.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3220 - Thermal-Fluid Science for Buildings

3 hours Basic principles of thermodynamics, heat transfer and fluid mechanics. Students learn first and second laws of thermodynamics, refrigeration cycles, conduction, convection and radiation heat transfer in buildings, heat exchangers, fluid flow in pipes, and pump and fan theories.

Prerequisite(s): MATH 2730 or equivalent courses, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3230 - System Dynamics and Control

3 hours Review of basic modeling techniques of the dynamic behavior of mechanical and electrical systems. Linear dynamics. Block diagrams. Feedback and compensation. Computer simulations of steady-state and dynamic behavior. Root locus and frequency response methods. Vibration analysis, control and suppression.

Prerequisite(s): MATH 3410; MATH 2700; MEEN 2302 or ENGR 2302, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3231 - System Dynamics and Control Laboratory

1 hour (0;3) Review of basic modeling techniques of the dynamic behavior of mechanical and electrical systems. Linear dynamics. Block diagrams. Feedback and compensation. Computer simulations of steady-state and dynamic behavior. Root locus and frequency response methods. Vibration analysis, control and suppression. The lab course covers the following topics: DC servomotor; dynamic systems modeling and simulation; sensors, instrumentation and data acquisition; force and motion measurement; image acquisition and analysis; electromechanical transduction; feedback control principles; inverted pendulum; control of drones.

Prerequisite(s): MATH 3410; MATH 2700; MEEN 2302, all with a grade of C or better.

Corequisite(s): MEEN 3230.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3240 - Mechanical and Energy Engineering Laboratory I

2 hours (1;3) Principles of experimentation. Measurement techniques and instruments. Statistical analysis of experimental data and error analysis. Presentation of data and report writing. Students perform a series of experiments in areas of mechanical engineering and undertake a project in which they design an experiment to obtain data.

Prerequisite(s): MATH 3410; MEEN 2210; MEEN 2110, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3242 - Mechanical and Energy Engineering Laboratory II

1 hour (0;3) Continuation of MEEN 3240. Principles of experimentation. Students perform a series of experiments in key areas of mechanical and energy engineering including convection, heat and energy transfer, experimental aerodynamics, thermal cycles, refrigeration, control of thermal systems and alternative energy technologies (solar energy, fuel cells and wind power).

Prerequisite(s): MEEN 3240 with a C or better; MEEN 3120 with a C or better; MEEN 3210 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3250 - Numerical Methods for MEE Engineers

3 hours Applications of mathematical methods and computational techniques to typical engineering problems. Topics include analysis of linear systems, numerical integration of ordinary differential equations, conditions for optimality and an introduction to finite element analysis.

Prerequisite(s): MATH 3410 with a grade of C or better; MEEN 2240 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4010 - Thermal Energy Storage (TES)

3 hours Thermal energy storage (TES) systems with focus on applications of thermodynamics, fluid flow and heat transfer. Discussion of various types of thermal energy storage technologies and methods. Topics include solar energy and TES, sensible TES, latent TES, cold TES, seasonal TES, environmental impacts of TES, and energy and exergy analysis of thermal energy storage systems.

Prerequisite(s): MEEN 3120 with a grade of C or better; MEEN 3210 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4030 - Product Design and Development

3 hours Design planning and strategies, reverse engineering, integration of product and manufacturing development, materials selection, and design for manufacturing assembly.

Recommended: MEEN 3100 and MEEN 3130, all with a grade of C or better.

Same as MEET 4100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4110 - Renewable Energy

3 hours Introduction to the physics, systems and methods of energy conversion from non-conventional energy sources, such as solar, geothermal, ocean-thermal, biomass, tidal, hydroelectric, wind and wave energy. Advantages and disadvantages of alternative energy sources and engineering challenges for the harnessing of such forms of energy. Energy storage. Fuel cells.

Prerequisite(s): MEEN 3110; MEEN 3210, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4112 - Fundamentals of Nuclear Engineering

3 hours Atomic physics and the structure of the atom. Radioactivity. Interactions of neutrons with matter, nuclear cross-sections. Nuclear fuels and fuel elements. Elements of nuclear reactors. Components and operation of nuclear power plants. Notable accidents of nuclear reactors. Breeder reactors.

Prerequisite(s): MEEN 3110; MEEN 3120, MEEN 3210, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4120 - Aerospace Fundamentals

3 hours Introduction to the fundamental knowledge used in the aerospace industry. Topics include orbital mechanics, basic aerodynamics, guidance and control methods, flight dynamics, and 6 Degree of Freedom (6-DoF) motion and simulation for aircraft and missiles.

Prerequisite(s): MATH 2700; MEEN 3120; MEEN 3230; MEEN 2240, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4130 - Failure of Deformable Bodies

3 hours Continuum mechanics approach to failure mechanisms in deformable solid bodies with their system design applications and use of engineering plasticity fundamentals to describe the permanent deformation in solids. The indentation hardness tests are related to plasticity. The fracture, fatigue and creep modes-of-failure analysis seeks to explain the mechanism, the use in mechanical systems design, service reliability and their interrelation.

Prerequisite(s): MEEN 2332 or ENGR 2332 with a grade of C or better, ENGR 3450 with a grade of C or better.

Same as MEET 4130.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4140 - Finite Element Analysis

3 hours (2;3) A numerical technique for finding approximate solutions to engineering solids and structural problems. The displacement method of finite element analysis using the iso-parametric formulation. Geometric modeling of solids and structures. Numerical coding with MATLAB for simple structural, fluid and thermal analyses. Practice with commercial finite element software such as ABAQUS or ANSYS.

Prerequisite(s): MATH 3410; MEEN 2332 or ENGR 2332; MEEN 2302 or ENGR 2302, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4150 - Mechanical and Energy Engineering Systems Design I

3 hours (2;3) Advanced treatment of engineering design principles with an emphasis on product and systems design, development and manufacture. Mimics “real world” environment with students working in teams to prepare product specification, develop several concepts, perform detailed design, and construct prototypes subject to engineering, performance and economic constraints.

Prerequisite(s): EENG 2610; MEEN 3130; MEEN 3210; MEEN 3230; MEEN 3242, all with a grade of C or better.

Corequisite(s): MEEN 3100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4151 - Manufacturing of Renewable Biocomposites for Lightweight Energy Efficient Structure

3 hours Manufacturing processes for renewable lightweight biocomposite products, including wood and other bio-based composites, for energy efficient structure, such as building structure.

Prerequisite(s): MEEN 2301 or ENGR 2301 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4152 - Composites and Lightweight Structures

3 hours Materials, mechanics and failure criteria of anisotropic materials (composites) and cellular solids.

Prerequisite(s): MEEN 2240 with a grade of C or better; MEEN 2332 or ENGR 2332 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4160 - Mechanical Vibrations

3 hours Review of dynamics for particle systems and rigid bodies; dynamic response of single and multiple degree of freedom and discrete mass systems; concept of natural frequencies and mode shapes for free, damped and un-damped systems; free, forced and random vibrations; mathematical techniques to model and design mechanical systems.

Prerequisite(s): MATH 1720 with a grade of C or better; MEEN 2302 or ENGR 2302 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4170 - Advanced Solid Mechanics

3 hours

This course introduces the basic principles on advanced mechanics of materials. This course will enable senior level undergraduate students to understand the fundamental solid mechanics and solve linear elastic problems of solids and structures.

Prerequisite(s): MEEN 2332 or ENGR 2332 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4180 - Feedback Control Systems

3 hours Overview of feedback controls, modeling of dynamics systems, dynamic responses. Analysis and design of control systems, PID control, frequency response design and introduction to digital control. Various control systems design principles and case studies

Recommended: MEEN 2240 with a C or better. MEEN 3230 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4190 - Experimental Design in Engineering

3 hours The course is designed for the senior engineering students, especially the graduate students, to use appropriate statistical methods for experiments, such as manufacturing, engineering testing, material synthesis, etc. for engineering problem solving. The knowledge learned from the course is to help the students use minimum experimental effort to obtain the most meaningful results and to make an appropriate conclusion. The techniques learned from the course will include data description, design value determination, analysis of variance, comparative experiments, linear regression, randomized block, correlation analysis and factorial design. The practical applications of these techniques will be discussed using the actual experimental data and interpretation of the problems.

Recommended: MEEN 2110 with C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4220 - Applied Computational Fluid Dynamics

3 hours Provides an introduction to computational fluid dynamics and heat transfer. Teaches the fundamentals of the computational approach to study fluid flow problems, and to provide a deeper understanding of the physical models and governing equations of fluid dynamics. Presents an opportunity to learn the basic skills of programming solutions to differential equations. The structure and performance of commercial software for applications in analysis and design of thermo-fluid systems will be also discussed.

Recommended: MEEN 3120 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4250 - Capstone Design in Mechanical and Energy Engineering

3 hours (2;3) Capstone course in Mechanical and Energy Engineering (MEE) culminating the experience of the Bachelor of Science degree in MEE and a direct continuation of MEEN 4150 - MEEN Design I. Student teams complete product design, development and manufacturing projects conceived to promote the common good of society. Patterned on a professional work-place environment that allows students to make connections between different areas of knowledge. Students learn decision-making strategies that include ethical analysis by planning and managing resources while adhering to an overall project schedule. As a major learning outcome of this capstone course, students are able to express ways that exposure to different ideas, perspectives and viewpoints enriches their thinking.

Prerequisite(s): MEEN 4150 and MEEN 3100 with a grade of C or better.

Required for the BS degree in mechanical and energy engineering at UNT.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4300 - Intermediate Thermodynamics

3 hours Axiomatic presentation of the law of thermodynamics including corollaries and applications related to energy conversion, the exergy method and entropy dissipation method for the evaluation of thermodynamic systems and cycles, thermodynamic equilibrium and stability, irreversible thermodynamics, chemical equilibria and applications in combustion.

Prerequisite(s): MEEN 3110; MEEN 3120; MEEN 3210, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4310 - Intermediate Heat Transfer

3 hours Advanced heat conduction and radiation for one-, two- and three-dimensional systems. Mathematical descriptions including separation of variables, Duhamel's Theorem, Green's function, and Laplace Transformation. Radiative properties of particulate media, semitransparent media and one-dimensional gray media.

Prerequisite(s): MEEN 3110; MEEN 3120; MEEN 3210, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4315 - Nanoscale Energy Transport Process

3 hours Microscopic heat carriers and transport; material waves; energy states in solids; statistical description of thermodynamics; waves; particle transport process; semiconductor materials; interfacial phenomena for non-conventional liquids.

Prerequisite(s): MEEN 3110; MEEN 3120; MEEN 3210, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4320 - Building Energy Systems

3 hours Course on heating and cooling of buildings with focus on application of thermodynamics, fluid dynamics and heat transfer. Topics may include psychometric processes, basics of fluid flow, heat transfer in buildings, heating and cooling energy calculations, HVAC air and water distribution equipment and systems, energy-efficient design of buildings, simulation programs and LEED building design.

Prerequisite(s): MEEN 3120, MEEN 3210 with a grade of C or better for mechanical and energy engineering and other engineering students. College graduation from related departments (engineering, architecture, physics, etc.) or equivalent qualification of a college degree for external participants or consent of department of external participants.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4330 - Introduction to Combustion Science and Engineering

3 hours Fundamental concepts and properties of fuels and combustion; fuel types; conservation laws; combustion thermodynamics and stoichiometry; chemical energy and equilibrium; adiabatic flame temperature; combustion kinetics; transport processes; ignition processes; flames classification; flame propagation; deflagrations and detonations; combustion applications; combustion in furnaces, boilers and engines; energy efficiency calculations; pollutant formation; and environmental impacts.

Prerequisite(s): MEEN 3110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4332 - Fundamentals of Air Pollution Engineering

3 hours Fundamental theories of air pollution and atmospheric science. Air pollution causes and impacts; atmospheric chemistry and physics; meteorology; and an introduction to air quality models. Control technology of particulate and gaseous air pollutants; process design variables; and industrial and engineering applications of control technologies.

Prerequisite(s): MEEN 3110 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4335 - Computational Simulation of Building Energy Systems

3 hours Lecture on simulation programs for analysis of building energy loads and system performance, analysis of multizone structure using one hourly simulation program, building energy analysis for existing buildings, building load calculation, building envelop, HVAC systems, electrical system and central plant simulation technique.

Prerequisite(s): MEEN 3120 and MEEN 3210 with a grade of C or better for mechanical and energy engineering and other engineering students. College graduation from related departments (engineering, architecture, physics, etc.) or equivalent qualification of a college degree for external participants or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4340 - Energy Efficiencies and Green Building Design for Commercial Buildings

3 hours Lecture course on the knowledge to be commissioning agents for LEED new construction, ASHRAE auditors for LEED existing buildings operations and maintenance, and ASHRAE modelers for LEED-NC. Students learn about ASHRAE standard 90.1. mechanical load design, illumination and efficacy, plumbing systems, commissioning, ASHRAE audits, energy efficiency and green programs to develop understanding of commercial buildings from an MEP Design Consultant perspective.

Prerequisite(s): MEEN 3120 and MEEN 3210 with a grade of C or better for mechanical and energy engineering and other engineering students. College graduation from related departments (engineering, architecture, physics, etc.) or equivalent qualification of a college degree for external participants.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4350 - Energy Efficiencies and Green Building for Residential Buildings

3 hours Lecture course on residential building science. Students learn about performance testing, visual verification, RESNET standards, ENERGY STAR for new homes, LEED for homes and energy audits of existing buildings.

Prerequisite(s): MEEN 3120 and MEEN 3210 with a grade of C or better for mechanical and energy engineering and other engineering students. College graduation from related departments (engineering, architecture, physics, etc.) or equivalent qualification of a college degree for external participants.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4410 - Energy Harvesting System Design

3 hours Energy harvesting is the conversion of ambient energy present in the environment into electrical energy. Energy harvesting system has a wide range of applications, including energy efficiency enhancement for a system, embedded power source for wireless sensor networks, and embedded power for biomedical devices. Introduces the design of energy conversion and storage systems from mechanical energy, including mechanical vibrations, thermal energy, and other energy sources.

Prerequisite(s): MEEN 3230 and ENGR 2405 (or EENG 2610) all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4415 - Smart Materials and Structures

3 hours Introduction to smart materials and structures, such as piezoelectric materials, shape memory alloys, magnetostrictive materials, adaptive structures and active vibration control systems. Covers their material properties, modeling methods and engineering applications in sensors, actuators, energy harvesting and biomedical devices.

Prerequisite(s): MEEN 3230 and ENGR 2405 (or EENG 2610) all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4460 - Fundamentals of Oil and Gas

3 hours The course provides an overview and history of the oil and gas industry and petroleum engineering, including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, well completions and production, surface facilities, reservoir mechanics and improved oil recovery. It introduces the importance of ethical, societal and environmental considerations and current events on activities in the petroleum industry.

Recommended: MEEN 3120 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4470 - Geothermal Heat Pumps

3 hours Introduction to the fundamental principle, calculation and design methods of various geothermal heat pump systems. The whole building energy modeling of geothermal heat pumps system. Prediction of long-term performance of ground loop heat exchanger Annual energy consumption and Electric Peak demand. Borehole field configurations.

Recommended: MEEN 3210 with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4480 - Energy Materials

3 hours This course will describe how advanced materials make possible efficient energy harvesting (solar cells) and energy storages (batteries, supercapacitors). Also the course introduces some principles for device applications, and advanced materials for future energy technologies.

Recommended: MTSE 3000 or equivalent with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4488 - Introduction to Microfluidics

3 hours Fluid mechanics in microsystems, flow simulations, materials and methods for fabrication of microfluidic systems, surface tension, viscosity, diffusion, flow characterization, valves, mechanical and electrokinetical pumps, microfilters, mixing, chemical microreactors, dispensing, separation, detection.

Prerequisite(s): MEEN 3120 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4490 - Corrosion Engineering

3 hours Eight forms of corrosion including uniform corrosion, galvanic corrosion, crevice corrosion, pitting, intergranular corrosion, stress corrosion cracking, flow accelerated corrosion (erosion corrosion), selective leaching are discussed. Thermodynamics of corroding systems are discussed in terms of Pourbaix diagrams. Advanced electrochemical DC and AC testing techniques such as Potentiodynamic Polarization, Polarization Resistance, and Electrochemical Impedance Spectroscopy for corrosion rate measurements are discussed. Methods to prevent corrosion including applications of protective coatings such as thin films of diamond, diamond like films will be discussed. Mechanisms of corrosion prevention by coatings, corrosion inhibitors, and cathodic protection will be discussed.

Recommended: ENGR 3450 or equivalent, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4500 - Introduction to Mechatronics and Automation

3 hours (2;3) Familiarizes students with input-output (I/O) systems that interface sensors/actuators with computers. Basic understanding of analog and digital signals, structured programming, and data acquisition are covered. LabVIEW programming and graphical user interface (GUI) are integral part of this course, where students can practically handle, program, and control various sensors/actuators for automated processes.

Recommended: EENG 2610/EENG 2611 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4510 - Electronic Manufacturing Technologies

3 hours Introduces the complete field of electronics manufacturing to students. Topics include an introduction to the electronics industry, electronic components, interconnections, printed wiring boards, and soldering and solderability. Automated assembly, including leaded component insertion and surface mount device placement, is covered. Packaging techniques such as wire bonding, flip chip, electro-magnetic interference, thin films deposition, electrostatic discharge prevention, testability and electronic stress screening are covered. A variety of manufacturing systems are covered.

Prerequisite(s): MEEN 3100 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4710 - Polymer Additive Manufacturing: Materials, Manufacturing and Performance

3 hours Emphasizes the fundamentals of additive manufacturing processes focusing on polymers. Polymer types, rheology of 3D printing sources in powder, resin and filaments are discussed. Equipment and machinery parameters and processing conditions needed are investigated. The broad range of additive manufacturing processes, devices, capabilities and materials that are available are discussed.

Recommended: MTSE 3000 or equivalent; MEEN 3120, MEEN 3130, MEEN 3210, all with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4720 - Advanced Experimental Design and Analysis in Engineering

3 hours Designed for the senior engineering students, especially the graduate students, to use appropriate statistical methods for experiments, such as manufacturing, engineering testing, material synthesis, etc. for engineering problem solving. The knowledge learned from the course is to help the students use minimum experimental effort to obtain the most meaningful results and to make an appropriate conclusion. Techniques learned include data description, design value determination, analysis of variance, comparative experiments, linear regression, randomized block, correlation analysis and factorial design. The practical applications of these techniques are discussed using the actual experimental data and interpretation of the problems.

Recommended: MEEN 2110 or equivalent, with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4730 - Advanced Solid Mechanics

3 hours Introduces advanced aspects of mechanics of materials. Once completed, students are able to solve complex solid mechanics problems such as torsion, bending of beam and stability problems.

Prerequisite(s): MEEN 2332 or ENGR 2332.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4740 - Feedback Controls of Dynamic Systems

3 hours Introduces the fundamental principles of modeling, analysis and control of dynamic systems. Topics include: mathematical modeling of dynamic systems, including mechanical, electrical, fluid and thermal systems; Laplace transform solution of differential equations; transfer functions and system responses in time and frequency domain; control systems design; state-space based analysis and design of control systems; and computer simulation for modeling and control system design (Matlab/Simulink).

Recommended: MEEN 3230 with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4750 - Automotive Manufacturing Processes and Production Systems

3 hours Manufacturing processes, sheet metal forming processes, metal casting processes, material removal processes, manufacturing processes for plastic, and composite materials. Joining methods, automation of manufacturing processes and operations, computer integrated manufacturing systems, product design and manufacturing of CAD/CAM/CIM, CNC machines, fundamentals of assembly line concepts (manual and automated), fundamentals of manufacturing systems (group technology, cellular manufacturing, flexible manufacturing systems), manufacturing process quality control, inspection and quality methods, lean six sigma in manufacturing.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4760 - Introduction to Robotics and Automation

3 hours Introduction to robotics, mechatronics and manufacturing automation. Robotic mechanisms and modeling, forward and inverse kinematics, manipulator dynamics, systems modeling, sensors and actuator integration, trajectory planning, vision, sensors and classical feedback control. MATLAB is used for project-based learning. Students are given laboratory project assignments in robotics and automation.

Recommended: MEEN 2240 and MEEN 3230, all with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4770 - Computational Fluid Dynamics

3 hours Provides an introduction to computational fluid dynamics and heat transfer. The aim is to teach the fundamentals of the computational approach to study fluid flow problems and to provide a deeper understanding of the physical models and governing equations of fluid dynamics. Also present an opportunity to learn the basic skills of programming solutions to differential equations. The structure and performance of commercial software for applications in analysis and design of thermo-fluid systems also are discussed.

Recommended: MEEN 3210 with a grade of C or better.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4800 - Topics in Mechanical and Energy Engineering

3 hours Varying topics in mechanical and energy engineering.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4810 - Topics in Mechanical and Energy Engineering

3 hours Varying topics in mechanical and energy engineering.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4890 - Directed Study in Mechanical and Energy Engineering

1–3 hours Study by individuals or small groups. Plan of study must be approved by supervising faculty. Written report is required.

Prerequisite(s): MEEN 2210.

May be repeated for 6 credit hours, but a maximum of 3 credit hours apply to major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4900 - Special Problems in Mechanical and Energy Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems.

Prerequisite(s): Consent of instructor.

May be repeated for 6 credit hours, but a maximum of 3 credit hours from MEEN 4900-MEEN 4910 apply to major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4910 - Special Problems in Mechanical and Energy Engineering

1–3 hours Individual instruction in theoretical, experimental or research problems.

Prerequisite(s): Consent of instructor.

May be repeated for 6 credit hours, but a maximum of 3 credit hours from MEEN 4900-MEEN 4910 apply to major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4920 - Cooperative Education in Mechanical and Energy Engineering

1–3 hours (0;0;3) Supervised field work in a job directly related to the student's major, professional field of study or career objectives, requiring a minimum of 300 hours of work each semester. Weekly reports, a final report, and supervisor evaluation are required.

Prerequisite(s): Sophomore level equivalent.

May be repeated for credit up to a maximum of 3 semester credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4930 - Undergraduate Research

3 hours Undergraduate research project under the supervision of faculty advisor. Written report is required. These 3 credits can be counted as a technical elective course (only for students in the grad track program).

Prerequisite(s): Consent of department; enrollment in the grad track program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEEN 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Mechanical Engineering Technology

MEET 2900 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3550 - Geometrical Dimensioning and Tolerancing

3 hours (2;3) Provides expanded explanations of dimensioning and tolerance methods and practices as defined by ASME National Standards (Y415-2009) and others. Tolerance of form, of position, datum, concentricity, symmetry, and gauging concepts for product, product equipment, and tooling design will be covered to reduce guesswork in manufacturing processes and thus improve quality, lower costs and ensure timely deliveries of manufacturing operations.

Prerequisite(s): ENGR 1304, with a C or better and either MFET 3110 or MEEN 3110, with a C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3650 - Design of Mechanical Components

3 hours

Design and selection of machine elements.

Prerequisite(s): ENGR 1304 and ENGR 2332 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3750 - Digital Manufacturing

3 hours This course aims to apply the fundamental and technological knowledge of Digitalization and Additive Manufacturing. Basic knowledge of materials behavior and manufacturing processes is required. As a learning outcome, the student will develop the ability to design, configure, and implement processes of additive manufacturing and 3D-scanning.

Prerequisite(s): ENGR 1304, MFET 3110, all with a C or better.

Corequisite(s): ENGR 3450.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3940 - Fluid Mechanics Applications

3 hours (2;3) Study of incompressible fluid mechanics, including pressure, force and velocity; hydraulic fluid power circuits and systems as used in industrial applications.

Prerequisite(s): ENGR 2302 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3980 - Digital Control of Industrial Processes

4 hours (3;3) Introduction to automation, electro-mechanical systems modeling, integration, and control. Interfacing, operating, and programming a wide range of industrial automation devices.

Prerequisite(s): CSCE 1030, EENG 2610, and ENGR 2302, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3990 - Applied Thermodynamics

3 hours Principles of energy balance and substance behavior as related to different engineering systems. Topics include gas laws, laws of thermodynamics, relationship between thermodynamics variables, thermodynamic tables and charts, power cycle and various applications.

Prerequisite(s): CHEM 1410, CHEM 1430, ENGR 2332 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4050 - Mechanical Design

3 hours (2;3) Elements, principles and graphic representation techniques of the design process. Design methodology and process in applied engineering design. Design problem identification, refinement and analysis in the development of machines.

Prerequisite(s): MEET 3650 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4100 - Fundamentals of Product and Process Design Development

3 hours Design planning and strategies, reverse engineering, integration of product and manufacturing development, materials selection, and design for manufacturing assembly.

Prerequisite(s): MFET 3110 and MEET 3650 all with a grade of C or better.

Same as MEEN 4030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4130 - Failure of Deformable Bodies

3 hours Continuum mechanics approach to failure mechanisms in deformable solid bodies with their system design applications and use of engineering plasticity fundamentals to describe the permanent deformation in solids. The indentation hardness tests are related to plasticity. The fracture, fatigue and creep modes-of-failure analysis seeks to explain the mechanism, the use in mechanical systems design, service reliability and their interrelation.

Prerequisite(s): ENGR 2332, ENGR 3450 all with a grade of C or better.

Same as MEEN 4130.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4140 - Engineering Vibration in Mechanical Systems

3 hours Introduction to the application of engineering vibrations for engineering technologists, including topics of harmonic motion and resonance. Analysis and application of multidegree of freedom discrete systems is introduced together with the automotive case study of shock absorbers.

Recommended: ENGR 2302, with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4350 - Heat Transfer Applications

3 hours Principles of energy transfer by heat; conduction, free and forced convection, radiation, condensation and boiling heat transfer; combined heat transfer; introduction to heat exchanger; simple numerical techniques and computer applications.

Prerequisite(s): MEET 3940, MEET 3990 all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4360 - Experimental Thermal Sciences

3 hours (2;3) Applications of thermal-fluid sciences based on fluid mechanics, thermodynamics and heat transfer areas with an emphasis on experimental approach. Measurement and instrumentation techniques: measurement of temperature, pressure, flow and thermal- and transport-properties, fundamentals of data acquisition, fundamentals of numerical analysis. Major engineering applications of thermal-fluid sciences: power cycles, refrigeration cycles, HVAC systems, heat exchangers.

Prerequisite(s): MEET 3940 with a C grade or better (or concurrent enrollment), MEET 3990 with a C grade or better (or concurrent enrollment), and MEET 4350 with a C grade or better (or concurrent enrollment).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4370 - Power Plant Equipment and Systems

3 hours Introduction to equipment used in the power, process and renewable industries. Valves, piping, pumps, compressors, generators, turbines, motors, lubrication systems, heat exchangers, furnaces, boilers, cooling towers, separators, reactors and distillation columns are covered. The utilization of this equipment within systems is covered.

Prerequisite(s): Junior standing in the College of Engineering.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4780 - Senior Design I

1 hour Project teams specify, plan and design a product or process. Written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): ENGR 3450 and MEET 3980 all with a grade of C or better.

Corequisite(s): MEET 4050, MEET 4350, and MFET 4210.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4790 - Senior Design II

3 hours (2;3) Implement, test and demonstrate a product or process. Oral and written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): MEET 4780 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4900 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4910 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4920 - Cooperative Education

1–3 hours

A supervised industrial internship requiring a minimum of 150 hours of work per credit hour and per experience.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 3 semester credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

MEET 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Media Arts

MRTS 1330 - Foundations of Media Arts

3 hours Survey of media arts with a focus on radio, television, film, and digital media, including podcasting, video games, and social media. Overview of basic knowledge related to media production, history and criticism.

Prerequisite(s): MRTS/CBCM major status.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 2010 - Introduction to Media Arts Writing

(COMM 2339)

3 hours Introduction to media writing and study of the basic theories, methodologies, techniques, principles and formats for the scripting of narrative and non-narrative media, including "New Media." Related software for screenplay, television, industrial and multi-media writing is explored. Required writing course for all MRTS majors.

Prerequisite(s): MRTS/CBCM major status, completion of 12 credit hours at UNT, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 2210 - Introduction to Media Arts Production

3 hours (3;3) Introduction to basic techniques. Audio, television (studio and location) and single-camera video and film methods are investigated. Includes production exercises and experiments.

Prerequisite(s): MRTS/CBCM major status. Completion of 12 credit hours at UNT; MRTS 1330, MRTS 2010 (may be taken concurrently); and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 2300 - Digital Asset Creation and Animation

3 hours Introduces the fundamentals of creating digital assets from an industry perspective with a focus on production techniques such as modeling, UV mapping, creating textures, animation, optimization for games, and other aspects of games, film, and television asset creation.

Prerequisite(s): MRTS/CBCM major, MRTS 1330 and MRTS 2010, and 2.75 GPA; or GMSD major, GMSD 1800 and ENGL 1310 or ENGL 1311 or TECM 1700, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 2900 - Special Problems

1–3 hours Individual study topics to be proposed by the student and approved by MRTS faculty and department chair.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

May be repeated for credit up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 3210 - Audio Production

3 hours (2;3) Audio production concepts and techniques using audio laboratory studio equipment.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3220 - Multi Camera Studio Production

3 hours (2;4) Studio production concepts and techniques using multi-camera studio equipment.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210 and 2.75 GPA

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3230 - Film Style Production

3 hours (3;3) Basic single-camera production concepts and techniques using small format video cameras and editing equipment.

Prerequisite(s): MRTS/CBCM major status and MRTS 2210.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3250 - Introduction to Game Design

3 hours Theory and practice of the process of designing games and playful experiences. Introduction to methods, concepts, techniques, and literature used in the design of games. The strategy is process-oriented, focusing on aspects such as rapid prototyping, play testing, and design iteration using a player-centered approach.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA; or GMSD major status, GMSD 1800 and ENGL 1310 or ENGL 1311 or TECM 1700, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3260 - Introduction to Level Design

3 hours Explores the history and theory of successful level design with an attention to spatial construction and player interaction, with a focus on industry methods and practices.

Prerequisite(s): MRTS/CBCM/GMSD major status, MRTS 3250, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 3300 - Radio and Television Announcing

3 hours Announcer qualifications, techniques and professional standards. Practice in delivery for all program and commercial announcing situations.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3330 - Sports Broadcasting I

3 hours Production techniques for radio and television involved in the broadcasting of sports events. Topics include pre-production, producing sports for radio and television, sports announcing, and evaluating sports programming. Course may involve covering sports events through KNTU-FM and NTTV. Focuses on covering football, men and women's basketball, and other fall sports.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 3340 - Sports Broadcasting II

3 hours Production techniques involved in the broadcasting of sports events for radio and television. Topics include preproduction, producing sports for radio and television, sports announcing and evaluating sports programming. Course may involve covering sports events through KNTU-FM and NTTV. Focuses on covering men's and women's basketball, baseball and other spring sports.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 3350 - History of Broadcasting in Britain

3 hours The British Broadcasting Corporation (BBC) and how its history and evolution directly impacted the development of the U.S. broadcasting industry.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA. Consent of department required when offered as Study Abroad.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Summer Only

MRTS 3355 - Contemporary Broadcasting in Britain

3 hours Current state of British media across multiple platforms with a focus on the impact and influence American media has played in recent years. Significant attention is given to film, television, and entertainment in the current media landscape.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330 , MRTS 2010 , and 2.75 GPA. Consent of department required when offered as Study Abroad.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Summer Only

MRTS 3365 - Media Ethics

3 hours Examines ethical questions and dilemmas faced by today's media professionals. Strong emphasis on how to implement and use an effective ethical decision-making process in the broadcast arena. Includes extensive use of case studies, class discussions, role playing, research and writing.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330 and MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3400 - Intermediate Screenwriting

3 hours Intermediate-level study of the methodologies, theories, principles, formats, skills and techniques of writing scripts for narrative features from concept to completed script using formatting-relevant software.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3410 - Intermediate Topics in Media Studies

3 hours Rotating topics in Media Studies at the intermediate level. Representative topics may include diversity in media, film history and media history.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3420 - Histories of Latin/x American Media

3 hours A survey of Latino/a/x and Latin American media, from silent films to twenty-first century podcasts, focusing on aesthetic as well as technological innovations in the Americas.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

MRTS 2210 is recommended.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 3445 - Video Game Histories

3 hours Video game history from both the dominant industry perspective of upgrading technology and alternative viewpoints including gendered, nonlinear, and material histories.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA; or GMSD major status, GMSD 1800 and ENGL 1320 or ENGL 1321 or TECM 2700 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3450 - U.S. Radio History

3 hours (2;3) Overview of the technical, economic, regulatory, and social factors influencing the development of U.S. radio broadcasting from its inception to the present. Critical analysis of radio program forms and strategies.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 3460 - Diversity in U.S. Cinema

3 hours Survey of diversity in U.S. cinema, from its beginning in the 1890s to its contemporary manifestation. Critical studies class focused on the aesthetic, cultural and industrial contexts of American film and the images it has produced, specifically of racial/ethnic identity, gender difference, class issues, sexuality, and ability.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 3465 - American Film History

3 hours A survey of film in America, from its beginnings to its contemporary manifestations, focused on its aesthetic sociocultural, and industrial contexts. The class includes readings, screenings, and discussions of American "independent" films as well as mainstream Hollywood releases.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring (Alternating Years)

MRTS 3470 - International Film History to 1945

3 hours (3;0;3) Aesthetic, technological and industrial development of film from 1896 to 1945, including the cinemas of North and South American, Europe, Asia, and Africa. Concentrates on the narrative film.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 3475 - International Film History from 1945

3 hours (3;0;3) Aesthetic, technological and industrial development of film from 1945 to present, including the cinemas of North and South America, Europe, Asia, and Africa. Concentrates on the narrative film.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 3482 - Radio Practicum

1–3 hours Supervised work in the on-campus radio broadcasting activities of the university's radio station, KNTU-FM 88.1 FM. Students learn various production techniques and the operations related to the station's various platforms which include broadcast, web site and social media.

Prerequisite(s): Consent of department and junior standing.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3502, MRTS 4480, MRTS 4900 and MRTS 4910 may be applied to the 42 hours of MRTS credit required for the degree. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3500 - Reporting, Videography and Editing for Digital Media

3 hours (3;1) Introduction to reporting, shooting, producing and editing (both audio and video), targeting non-fiction informational programming. This includes news, unscripted, documentary, sports and magazine formats across multiple platforms, including broadcast and digital.

Prerequisite(s): CBCM/MRTS major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3502 - Television Practicum II

2 hours Supervised work in the on-campus television activities of the Department of Media Arts, such as NTTV (North Texas Television). Students are designated as "producers" and have the primary responsibility of originating programs, supervising and performing day-to-day production activities, checking out equipment and working with the instructor on special projects and assignments. Students participate in developing Internet-based news, sports and entertainment programming based on original work.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, consent of department, and 2.75 GPA.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 4480, MRTS 4900 and MRTS 4910 may be applied to the 42 hours of MRTS credit required for the degree. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60.60 (instructional fees), $30 (differential fees)

MRTS 3525 - Content Development for Digital Media

3 hours (3;1) Advanced production of news and informational content for radio, television and the Internet. Project-oriented curriculum giving advanced students experience creating podcasts, marketing video, mini docs and other digital content for cross-platform distribution.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3540 - Fundamentals of Motion Design

3 hours Examines how the fundamentals of motion design are utilized in a variety of media disciplines in order to use industry tools to design, develop, and render professional motion graphics and visual effects.

Prerequisite(s): MRTS/CBCM Major Status, MRTS 2210 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3560 - Interviewing and Performance for Electronic News

3 hours Theory of broadcast communication as applied to television and radio news and public affairs. Focus on interviewing skills with emphasis on researching topics, developing interview format and streaming Internet interviews. Teaches voice and on-camera performance for radio and television, including live in studio and from the field, for use in both news and public affairs environment. Extensive hands-on experience.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3610 - Film and Television Analysis

3 hours (2;4) Introduces students to various qualitative methods used to study film and television, such as semiotics, structuralism, ideology and psychoanalysis.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

This course serves as a pre-requisite for many 4000 level studies courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 3615 - Understanding Media Industries

3 hours Introduction to the organization and function of the major media industries across societies, nations and time periods. Provides students with knowledge of how media industries operate, why they work as they do, and the broader theoretical and practical implications of media industry structure and function.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

This course serves as a prerequisite for many 4000 level studies courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 3620 - Digital Media and Society

3 hours Overview of development, organization and operation of different digital media technologies, platforms and industries. Analyzes broader concepts related to identity, community, and privacy.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA.

This course serves as a prerequisite for many 4000 level courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3630 - Game Studies: Players, Culture and Industry

3 hours Analyzes video games that come from the humanities and social sciences using a variety of methods.

Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010, and 2.75 GPA; or GMSD major status, GMSD 1800, ENGL 1320 or ENGL 1321 or TECM 2700 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 3640 - Scene Analysis

3 hours Studies and analyzes scenes from 24 narrative feature films. Scenes will be studied and analyzed from the perspective of the Screenwriter, the Director, the Cinematographer, the Actor, and the Editor.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4125 - History and Theory of Film Remakes

3 hours The cultural and industrial logics behind film remakes from their origins as “dupes” at the turn of the 20th century to their current iteration as reboots in the 21st century.

Prerequisite(s): MRTS/CBCM major status; MRTS 2210 and MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 4140 - Advanced Film Production I

3 hours (3;2) Scripting, preproduction, cinematography, directing, editing and using 4K Digital Cinema equipment.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220 or MRTS 3230 or MRTS 3500, and 2.75 GPA. MRTS 3210 is recommended.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 4150 - Cinematography

3 hours Cinematography is an advanced, hands-on film production course. Working with high-end cameras and lighting kits, students explore an array of aesthetic shooting and lighting techniques. Additionally, students receive immersive training in the technical aspects of lighting and camerawork.

Prerequisite(s): MRTS/CBCM major status, MRTS 3230 or MRTS 3500, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4210 - Advanced Audio Production

3 hours (2;3) Advanced training in the art and technique of audio production in radio and other media.

Prerequisite(s): MRTS/CBCM major status, MRTS 3210 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4215 - British Cinema and Television

3 hours Theories of British national identity and how these are reflected in its cinema and television of the 1990s and beyond. Political and cultural discourses, as well as race (incl. regional specificities) and gender.

Prerequisite(s): MRTS/CBCM Major Status, MRTS 2210, MRTS 3610 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 4225 - Women in Film

3 hours The development of feminist film theories and their continued impact on contemporary global cinema. Addresses a wide range of topics as they relate to women in film, including agency, violence, sexuality, spirituality and social politics.

Prerequisite(s): MRTS/CBCM Major Status, MRTS 2210, MRTS 3610 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 4230 - Affect, Emotion and the Movies

3 hours (2;2) Examines ways that movies can work to generate audience engagement on an emotional level, with an emphasis on affect theory and the study of feeling and emotion in cultural discourse and activity.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only (Alternating Years)

MRTS 4235 - Masculinities in the Movies

3 hours Explores concepts in feminist film theory and gender studies to illustrate some of the ways gendered subjectivity has been presented on the movie screen.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only (Alternating Years)

MRTS 4240 - Hitchcock Films

3 hours (2;2) Focuses on films directed by Alfred Hitchcock tracking the development of Hitchcock's career from the early days in Britain through his studio successes in America. Detailed analyses of specific Hitchcock films and engagement with the various debates about authorship, genre, psychoanalysis and film which have been staged in relation to Hitchcock's work.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only (Alternating Years)

MRTS 4250 - Cinema Beyond the West

3 hours Explores the various forms and styles of contemporary world cinema. Different ideologies of foreign narratives that explore diverse subject matter, issues, and conflicts. The historical development of cinema is examined in specific countries while considering its political and social influences up through present day.

Prerequisite(s): MRTS/CBCM Major Status, MRTS 2210, MRTS 3610 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 4255 - Fans and Transformative Works

3 hours Fans as authors and their works as transformative contributions to media culture through analyzing fan created texts, including cosplay, fan fiction, podcasting, film art, and remix video, along with reading and discussing theoretical work on fan studies.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210 and MRTS 3610 or MRTS 3620 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4320 - Media Law and Regulations

3 hours An introduction to the laws and regulations affecting broadcasting, cable, film and digital media and analyzes the ways that Hollywood has shaped the laws, regulations, and culture of the U.S.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4350 - Media Authors

3 hours Examines film, television, games, or other media art from the point of its authorial creation. Rotating topics may include the work of specific directors, screenwriters or producers.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4360 - Global Media

3 hours Study of global media and communication theories. Students analyze press and media systems; international media industries; the sources and flow of international media content and news; advertising and branding; and media influence on audiences around the world.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4400 - Advanced Film Production II

3 hours (2;3) Techniques of planning and production; production of a film project.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220 or MRTS 3230 or MRTS 3500, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 4405 - Documentary Production

3 hours The production of a creatively crafted and technically proficient short documentary from idea through the final edit and public screening. Range of styles and approaches to documentary filmmaking, ethical considerations, appropriate preproduction planning and scheduling, and obtaining permissions and clearances in advance of production.

Prerequisite(s): MRTS/CBCM major status, MRTS 3230 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only (Alternating Years)

MRTS 4410 - Topics in Digital Media Studies

3 hours Rotating topics in digital media studies. Representative topics include social media, mobile media, online platforms, and video games.

Prerequisite(s): MRTS/CBCM major status; MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630; and 2.75 GPA. Prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4411 - Video Production Topics

3 hours Rotating topics in video production. Representative topics include documentary production and music for television production.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220 or MRTS 3230 or MRTS 3500, and 2.75 GPA. Prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4412 - Film Production Topics

3 hours Rotating topics in film production. Representative topics include lighting for cinematography and directing for film.

Prerequisite(s): MRTS/CBCM major status, MRTS 3230 or MRTS 3500, and 2.75 GPA. Prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4415 - Topics in Film and Television Studies

3 hours Rotating topics in film and television studies. Topics may include studies of specific genres, national cinemas, or production periods.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA. Prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4430 - Media Management

3 hours Provides an understanding of the many tasks and duties involved in media management in the broadcast, cable and telecommunication industries. Includes classroom lectures/discussions, guest speakers and individual case study assignments and projects.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4435 - Media Marketing and Branding

3 hours Provides an overview and understanding of the principles, theories and technique of promotion, marketing and branding as applied to television and other electronic media. The focus is creative, hands-on, and industry oriented.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4445 - Media in the 21st Century

3 hours Examines the concept of human communication, broadcast communication, media consumption, media and news in the 21st century, including global media styles, propaganda and blogging. Also an analysis of how widespread mistrust of the media influences the manner in which journalists do their jobs, with a focus on First Amendment rights, freedom of information, and access to government and business.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring (Alternating Years)

MRTS 4450 - Topics in Media Industry Studies

3 hours Rotating topics in media industry studies. Topics may include digital distribution, social and mobile media industries, production cultures, and case studies of industry leaders.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630 and 2.75 GPA. Other prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4465 - Writing for Television

3 hours An introduction to creating and writing for half-hour and hour-long series through individual and collaborative TV writers' room environments.

Prerequisite(s): MRTS/CBCM major status, MRTS 3400, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4466 - Advanced Television Writing

3 hours Examines and recreates the practices of a working writers' room, including seasonal and episodic breaks, small and large group outlining, round table notes, punch-up sessions, showrunning, and both paired and individual rewrites.

Prerequisite(s): MRTS/CBCM Major status, MRTS 4465 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4470 - Topics in Media Writing

3 hours Rotating topics in MRTS writing. Topics include science-fiction screenwriting, critical studies writing and media report writing.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA. Prerequisites may vary by topic and may require consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 4480 - Internship in Media Arts

1–3 hours Supervised work experience, typically off campus, in a job that relates to student's career objective. Required for CBCM majors, recommended for MRTS majors.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, a 2.75 GPA and a minimum of 90 hours with at least 15 advanced hours in the major. Must meet employer's requirements and receive consent of department.

MRTS majors may repeat for credit; however, no more than 6 hours of total credit for MRTS 3482 , MRTS 3502, MRTS 4900, and MRTS 4910 may be applied to the 42 hours of MRTS credit required for the degree. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered:

MRTS 4500 - Advanced Screenwriting

3 hours Creation, treatment, writing, and revision of a full-length motion picture screenplay or teleplay. Students are expected to complete a 90- to 120-minute script.

Prerequisite(s): MRTS/CBCM major status, MRTS 3400, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4530 - Gender and Sexuality in the Horror Film

3 hours Examines the history of the horror film, focusing on issues related to how the genre configures gender and sexuality.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only (Alternating Years)

MRTS 4540 - Lesbian, Gay and Queer Film and Video

3 hours Examines the representation of lesbian, gay and queer characters and concerns throughout the history of American film.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 4550 - Cinema Verite

3 hours Examines the development of this major style in documentary, from its introduction in 1960 to its present use in nonfiction film and television. Outlines its history in detail and explores its employment in reality television, fiction film and television drama.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only

MRTS 4570 - Game Genre: Adventure Games

3 hours Analyzes game genre by looking at the history of the adventure game through the lenses of design, marketing and player experience.

Prerequisite(s): MRTS/CBCM major status; MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630 and 2.75 GPA; or GMSD major status, MRTS 3630 or ENGL 3225; and 2.75 GPA.

Meets with MRTS 5570.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4630 - Film Festivals and Markets

3 hours The business and culture of international film festivals and markets through specific case studies and hands-on projects.

Prerequisite(s): MRTS/CBCM Major status; MRTS 2210; MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630; and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4650 - Location Recording and Post Sound Production

3 hours Concepts and practices of location sound recording and post sound mixing as they relate to the overall film production concept.

Prerequisite(s): MRTS/CBCM major status, MRTS 3210 or MRTS 4210 (recommended), and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 4660 - Gender and Gaming

3 hours Investigates the intersections of gaming and gender by using a cultural studies approach to representation, identity, production, consumption, and regulation.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA; or GMSD major status, MRTS 3630 or ENGL 3225, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4665 - Gender, Race and Digital Media

3 hours Employs intersectional feminist media theory to analyze the relationships between gender, race and digital technologies. Uses historical and contemporary examples to examine how platform politics shape and are shaped by identity, discourse and experiences.

Prerequisite(s): MRTS/CBCM major status; MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall Only (Alternating Years)

MRTS 4675 - Media and Power in Latin America

3 hours Overview of twenty-first century corporate leaders in Spanish-language (and bilingual) media–as well as grassroots responses to such entities and content–on air, on film and online.

Prerequisite(s): MRTS/CBCM major status; MRTS 2210; MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring (Alternating Years)

MRTS 4740 - Editing I

3 hours Overview of some of the most useful editing techniques, theories and trends in the history and current practice of film and television. The craft of editing will be introduced using digital nonlinear editing systems.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220 or MRTS 3230 or MRTS 3500, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4745 - Editing II

3 hours Designed for students wishing to pursue a career as a professional television or film editor. Topics include understanding editor and assistant editor responsibilities, professional editing terms and concepts, working with high resolution workflows, and on-line vs off-line editing. Additional topics: genre editing, versioning and deliverables. Students who pass the course become eligible for the Avid Certified Professional Exam.

Prerequisite(s): MRTS or CBCM major status, MRTS 4740 and 2.75 UNT GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Spring Only

MRTS 4755 - Virtual Studio Production

3 hours Introduces the history, theory, creative and technical techniques, and general workflow used in bluescreen/greenscreen image compositing for television, still photography and feature film producing using industry standard hardware and software.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

MRTS 4810 - Directing Narrative Media

3 hours Major theories and skills needed to direct narrative film and video.

Prerequisite(s): MRTS/CBCM major status, MRTS 3220 or MRTS 3230, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4820 - Producing and Managing Narrative Media

3 hours Major theories and skills needed for the producing and production management of narrative media from concept through exhibition.

Prerequisite(s): MRTS/CBCM major status, MRTS 3230 or MRTS 3500, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4850 - Television News Producing

3 hours (3;3) Theory and practice of producing television newscasts in a station environment. Provides basic TV news management, content design and development for broadcast and exposure to other media career paths.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, MRTS 3610 or MRTS 3615 or MRTS 3620 or MRTS 3630, 2.75 GPA, and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall and Spring

MRTS 4900 - Special Problems

1–3 hours Problem must be approved by department chair.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, 2.75 GPA, and consent of instructor and department chair.

May be repeated for credit; however, no more than 6 hours of total credit may be applied to the 42 hours of MRTS credit required for the degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4910 - Special Problems

1–3 hours Problem must be approved by department chair.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, 2.75 GPA, and consent of instructor and department chair.

May be repeated for credit; however, no more than 6 hours of total credit may be applied to the 42 hours of MRTS credit required for the degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4911 - Special Problems in Video Production

1–3 hours Individual study topics to be proposed by the student and approved by media arts department faculty and Production Committee prior to commencing work.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, 2.75 GPA, and consent of instructor and department chair.

May be repeated for credit; however, no more than 6 hours of total credit may be applied to the 42 hours of MRTS credit required for the degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4912 - Special Problems in Film Production

1–3 hours Individual study topics to be proposed by the student and approved by MRTS faculty and Production Committee prior to commencing work.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, 2.75 GPA, and consent of instructor and department chair.

May be repeated for credit; however, no more than 6 hours of total credit may be applied to the 42 hours of MRTS credit required for the degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4913 - Special Problems in Audio Production

1–3 hours Individual study topics to be proposed by the student and approved by MRTS faculty and Production Committee prior to commencing work.

Prerequisite(s): MRTS/CBCM major status, MRTS 2210, 2.75 GPA, and consent of instructor and department chair.

May be repeated for credit; however, no more than 6 hours of total credit may be applied to the 42 hours of MRTS credit required for the degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)
Typically Offered: Fall, Spring and Summer

MRTS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $30 (differential fees)

Merchandising

MDSE 1490 - Adulting 101

3 hours Designed to cover basic concepts for effective personal finance, home, clothing, food, personal and family management.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

MDSE 2350 - Trend Analysis and Forecasting

3 hours Comprehensive overview of apparel product development, focusing on researching and interpreting fashion direction, social and cultural influences, market and sales research, analyzing comparable market offerings, and analyzing trends for color, materials, and style. Environmental scanning, customer conversion, revenue optimization, global collaboration, and selling innovation are explored.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 2490 - Introduction to Merchandising

3 hours Survey of the apparel, accessories, furnishings, and decor merchandising process including design and development, manufacturing, wholesaling, retail distribution of these products and associated industry terminology, resources, and career opportunities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

MDSE 2650 - Textiles for Apparel

3 hours Fibers, fabric, construction and finishes applied to selection, use and care of apparel fabrics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

MDSE 2700 - Excel for Industry

3 hours Study of beginner and advanced components of Excel software for analysis applications. Additional applications of Word and PowerPoint for professional communication and presentation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

MDSE 2750 - Consumers in a Global Market

3 hours Cross-cultural comparisons using systems, human needs, and consumer behavior frameworks are integrated with critical, empirical and creative thinking processes to develop a global perspective that is sensitive to diverse consumers' needs and preferences for products and services in a global market. This class helps students gather the tools necessary for full engagement in the undergraduate experience by having them examine their own value systems and compare and contrast them with other cultures in a consumption context. Requires students to think critically, articulate views, cultivate self-awareness, balance and an openness to change, and engage with others in thoughtful and well-crafted communication.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 2790 - Talent Development

3 hours Examines the impact of business environments on professional and career effectiveness in the merchandising and digital retailing fields. Topics include effective business communication, ethical decision making and leadership development.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 3200 - Fashion Styling

3 hours Provides a comprehensive exploration of the diverse world of fashion styling. Students investigate the various dimensions, avenues and trends in modern fashion styling. Topics include editorial, celebrity, personal and digital styling, along with the essential business skills needed to excel in these areas. Students learn about practical aspects such as high-profile client management, brand consulting, and the creative processes behind mood boards and visual storytelling.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

MDSE 3350 - History of Fashion

3 hours Survey of costume from ancient civilization to the present. Emphasis on technological, cultural and social influences on historic and contemporary styles.

Prerequisite(s): Junior standing recommended.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 3370 - Social Psychology of Dress and Appearance

3 hours Theoretical frameworks are examined and used to interpret the meanings of dress in cultural patterns, social organizations, social interactions and personal identities. Current fashion trends are analyzed and interpreted through the study of popular culture and everyday life.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 3400 - Luxury Fashion Retailing

3 hours Students analyze the multi-billion dollar global industry for luxury goods and services. Students examine the phenomenal growth of the global luxury fashion industry with an emphasis on the retailing strategies and luxury consumer behavior in current and emerging markets. Students explore related theories and contemporary cases and discuss issues related to luxury fashion retailing from a global perspective.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

MDSE 3510 - Buying

3 hours (3;1) Introduction to buying, merchandise planning and control, and pricing.

Prerequisite(s): MATH 1100 or higher with grade of C or better, ACCT 2010 with grade of C or better, MDSE 2700 with grade of C or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 3650 - Advanced Textiles

3 hours (2;2) Evaluate aesthetic, durability, comfort, care, and safety problems associated with consumer textile products. Use AATCC and ASTM standards and procedures, basic research methods, technical and consumer literature, and computer applications to prepare a comprehensive textile product evaluation report.

Prerequisite(s): MDSE 2650 or FADM 2655 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10.40

MDSE 3900 - Branding and Promotion

3 hours Students analyze, develop and present 'Integrated Brand Promotions' for fashion-oriented products and services. Emphases are on recent fashion-oriented branding cases and promotional tools/ techniques, including rebranding, STP, creative plan, communication mix, and promotional tools.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing

3 hours Experience fashion and home furnishings industries through visits to manufacturing facilities, retail establishments, museums, historical structures, and industry support organizations in New York. Pre-trip and post-trip classes required. Students may get program credit for up to two study tour classes.

Prerequisite(s): C or higher in MDSE 2490 or DBUS 2050 or consent of department and good standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Summer Only

MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing

3 hours Experience merchandising industries through visits to retail corporate offices, manufacturing facilities, retail establishments, and industry support organizations in and around Dallas. Learn about merchandising, digital retailing, and consumer experience internships and career opportunities.

Prerequisite(s): C or higher in MDSE 2490 or DBUS 2050 or consent of department and good standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 4003 - Global Discovery: Hong Kong/China

3 hours Experience fashion and home furnishings industries through visits to manufacturing facilities, retail establishments, museums, historical structures, and industry support organizations in Hong Kong and China. Pre-trip and post-trip classes required. Students may get program credit for up to two study tour classes

Prerequisite(s): C or higher in MDSE 2490 or DBUS 2050 or consent of department and good standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10.40

MDSE 4004 - Global Discovery: Europe

3 hours Experience fashion and home furnishings industries through visits to manufacturing facilities, retail establishments, museums, historical structures, and industry support organizations in Europe, primarily in Paris and London. Pre-trip and post-trip class meetings required. MDR students may get program credit for up to two study tour classes.

Prerequisite(s): C or higher in MDSE 2490 or DBUS 2050 or consent of department and good standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Summer Only

MDSE 4010 - Global Sourcing

3 hours An overview of global sourcing in the textile and apparel industries and the factors affecting business decision-making from product concept to distribution with an emphasis on global issues. Major topics include the textile and apparel complex and its history, international trade and the effects of trade policy, planning and organizing the functions and processes of the sourcing organization including the selection of sourcing locations and partners, sourcing regions of the world, and current trends.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4080 - Retail Start-Up

3 hours Principles and procedures used in starting and operating a retail business that include: consumer research, financial planning, logistical analysis, management and strategic planning. Examines various product and service offerings in traditional and non-traditional retail formats.

Prerequisite(s): Any MATH or ACCT course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Spring Only

MDSE 4250 - Product Development

3 hours (2;2) Analysis of the apparel production process relative to the consumer and the merchandising organization, impact of decisions, and quality issues relative to development and production of ready-to-wear apparel. Concepts include apparel components, sizing, pricing and costing, and production planning.

Prerequisite(s): MDSE 2350 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

MDSE 4510 - Advanced Buying, Planning and Allocation

3 hours In-depth study of planning, buying and distributing merchandise to retail stores.

Prerequisite(s): C or higher in MDSE 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10.40

MDSE 4560 - Sustainable Strategies in Merchandising

3 hours Provides a comprehensive overview of the core concepts of sustainability and sustainable business practices in the fashion industry. Utilizes case studies and research simulations. Embeds practice-based approaches to sustainable development with special emphasis to the fiscal implications of sustainability initiatives.

Prerequisite(s): Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4660 - Advanced Application

3 hours Capstone course requires students to apply theory, principles and practices to solve industry case studies. Emphasis on problem solving, case analysis, creative thinking, fact finding, data analysis and data interpretation.

Prerequisite(s): Digital Business and E-commerce, Merchandising, and Interdisciplinary Studies in Consumer Insights majors: major in DBUS, ICON, or MDSE; C or higher in MDSE 2790; C or higher in MDSE 3510, DBUS 4370, or ICON 4440; and consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

MDSE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

Merchandising, Hospitality and Tourism

CMHT 2560 - Food Retailing: Issues and Trends

3 hours Critical examination of the unique issues and trends across various food retail formats. Emphasis on innovation, evolving business models, technology, and changing consumer expectations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall and Spring

CMHT 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

CMHT 3450 - Effective Leadership Communication

3 hours Principles of effective leadership communication will be explored as students develop, deliver, and evaluate professional presentations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall Only

CMHT 3950 - Creating Consumer Experiences

3 hours Students apply theories to develop consumer experience strategies in diverse industries, focusing on technology and artificial intelligence (AI). Students build prototypes of conversational AI agents (e.g., chatbots), and earn a professional certification.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered:

CMHT 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

CMHT 4000 - Global Discovery in Merchandising and Hospitality Management

1–3 hours Experience fashion, home furnishings, and hospitality industries through visits to manufacturing facilities, retail establishments, museums, historical structures, hotels, restaurants and industry support organizations. Includes field study in industry centers for fashion, home furnishings, hospitality, or other selected U.S. or international destinations. Pre-trip and post-trip classes required.

Prerequisite(s): C or higher in DBUS 2050, EDEM 1600, HMGT 1500, or MDSE 2490; approval of application, good standing and consent of college.

Credit varies depending upon length of field study and destination. May be repeated for credit for a maximum of 6 hours. No more than 3 hours of field study may be used to fulfill degree requirements.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

CMHT 4001 - Global Discovery: Sustainable Food and Fiber

3 hours Experience fashion, home furnishings, and hospitality industries through visits to manufacturing facilities, retail establishments, museums, historical structures, hotels, restaurants and industry support organizations. Specific topics include resilient food and fiber supply chain and innovative production and agriculture. Pre-trip and post-trip classes required.

Prerequisite(s): UNT student in good standing and consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

CMHT 4750 - Workforce Dynamics in a Global Business Environment

3 hours Workforce dynamics provide strength in the current global business environment. Investigates the concepts, policies and practices facing professionals in the global workplace.

Prerequisite(s): Senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

CMHT 4790 - Internship in Merchandising and Hospitality Management

3 hours

Event Design and Experience Management majors and Hospitality Management majors only: Supervised work experience in business, agencies or institutions as related to major field, requiring a minimum of 300 hours of work experience. Course requirements include Internet-based assignments and experiential activities. A student may not enroll in more than four additional classes during either long term/semester (fall/spring). During the combined summer sessions, students may not be enrolled in more than 12 total hours including CMHT 4790. During the combined summer sessions, students may not be enrolled in more than one additional class during any term in which they are enrolled in CMHT 4790. All students must attend a pre-internship orientation the semester prior to enrolling in CMHT 4790.

Digital Business and Ecommerce, Interdisciplinary Studies in Consumer Insights, and Merchandising majors only: Supervised work experience in business, agencies or institutions as related to major field, requiring a minimum of 300 hours of work experience. Course requirements include assignments, experiential activities and scheduled lecture times on campus. A student may not enroll in more than three additional classes during either long term/semester (fall/spring). During the combined summer sessions, students may not be enrolled in more than one additional class during any term in which they are enrolled in CMHT 4790. All students must attend a pre-internship orientation the semester prior to enrolling in CMHT 4790.

Prerequisite(s): **Event Design & Experience Management and Hospitality Management majors:** senior standing and consent of instructor.

Digital Business and Ecommerce, Interdisciplinary Studies in Consumer Insights, and Merchandising majors: C or higher in MDSE 2790 and in one of the following courses (DBUS 4370, ICON 4440, or MDSE 3510), and consent of instructor

Event Design and Experience Management and Hospitality Management majors: students must have completed 500 documented work hours in the hospitality industry. Must take CMHT 4790 within the last 30 hours of course work.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

CMHT 4800 - Seminar in Merchandising, Hospitality and Tourism

3 hours Seminar covering a broad range of research topics impacting the merchandising, hospitality, and tourism industries. Explore current trends through concentrated reading, industry connections, and group discussion.

Prerequisite(s): Only CMHT students. Junior or senior standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

CMHT 4801 - Seminar in Leadership

3 hours Examines leadership theory within the context of the retail and hospitality industries. Students learn how to manage change, deal with conflict, and effectively build and lead teams through case analyses and active learning. Includes strategies for developing interpersonal skills to effectively influence organizational culture.

Prerequisite(s): UNT student in good standing and consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

Middle School Education

EDME 3380 - Teaching and Learning in the Middle Grades

3 hours Provides teacher candidates with the knowledge and skills to teach young adolescents at the middle school level. Topics include young adolescent development; the middle level philosophy and school organization; middle level curriculum, instruction and assessment teaching skills; and middle level professional roles.

Prerequisite(s): Admission to the teacher education program (includes participation in a field-based program), an adolescent/lifespan development course, and an educational-application computer course.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4103 - Student Teaching in Grades 4–8

3 hours Teaching under supervision in grades 4 through 8.

Prerequisite(s): Admission to teacher education; all program course work with the exception of (a) student teaching; (b) EDEE 4890; and (c) EDSP 4350 (as required for certification).

Required for those seeking grades 4–8 certification. See Student Teaching Program for details. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4104 - Student Teaching in Grades 4–8

3 hours Teaching under supervision in grades 4 through 8.

Prerequisite(s): Admission to teacher education; all program course work with the exception of (a) student teaching; (b) EDEE 4890; and (c) EDSP 4350 (as required for certification).

Required for those seeking grades 4–8 certification. See Student Teaching Program for details. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4330 - Science in Grades 4–8

3 hours Subject matter background and material organization for an integrated science program in the upper-elementary and middle school. Students experience first-hand the scope and sequence of science education.

Prerequisite(s): Admission to the teacher education program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4340 - Social Studies in Grades 4–8

3 hours Principles of teaching social studies in the upper-elementary and middle school. Students observe social studies instruction and materials in real settings, apply principles of social studies instruction in classroom settings, and experience first-hand the scope and sequence of the curriculum in an upper-elementary or middle-school setting. Assignments, directed field experience and other class activities take place in a school setting.

Prerequisite(s): EDEE 3320 and EDME 3380. Admission to the teacher education program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4351 - Teaching Mathematics in Grades 4–8

3 hours Offers candidates a constructivist approach to helping students develop a knowledge of mathematics in grades 4–8. Teaching strategies are presented with developmental activities that are used with middle grade students. Students reflect on what it means to teach mathematics and explore the factors that influence teaching.

Prerequisite(s): Admission to the teacher education program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4890 - Inquiry into Classroom Practice

3 hours Emphasis on reflective inquiry as teacher candidates relate theory and research to their own teaching experiences. Addresses the following topics: inquiry into curricular content and structure, pedagogical practices, assessment approaches, student diversity, equity issues, and professional communication and engagement.

Recommended: Successful completion of early student teaching and current placement in a field site for student teaching.

Required for student teaching. Must be taken concurrently with student teaching.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDME 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Military Science

MILS 1141 - Foundations of Leadership

1 hour (1;3) Fundamental concepts of leadership in a profession in both classroom and outdoor laboratory environments. The study of time management skills, basic drill and ceremony, physical fitness, rappelling, leadership reaction course, first aid, making presentations and marksmanship. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in independent physical fitness training, plus optional participation in a weekend field training exercise.

Typically Offered: Fall Only

MILS 1142 - Introduction to Leadership

1 hour (1;3) Application of principles of leadership through participation in physically and mentally challenging exercises with upper-division ROTC students. Course focuses on communication skills, organizational ethics, and study and time management techniques. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

Typically Offered: Spring Only

MILS 1180 - Leadership Laboratory

1 hour (0;3) Practical laboratory of applied leadership and skills. Student-planned, -organized and -conducted training, oriented toward leadership development. Laboratory topics include marksmanship, small unit tactics, multi-tiered programs focused on individual skill levels.

Uniform and equipment provided, no fee. May be repeated for credit.

Typically Offered: Fall and Spring

MILS 2251 - Individual/Team Development

2 hours (2;1) Application of ethics-based leadership skills and fundamentals of ROTC's Leadership Development Program. Develop skills in oral presentations, concise writing, event planning, coordination of group efforts, advanced first aid, land navigation, and military tactics. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

Typically Offered: Fall Only

MILS 2252 - Individual/Team Military Tactics

2 hours (2;3) Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security, and pre-execution checks. Concurrent enrollment in MILS 1180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

Typically Offered: Spring Only

MILS 2291 - Conference Course

2 hours Independent study designed to supplement the military science curricula by a student's concentrated study in a narrower field of military skill or subject matter.

Prerequisite(s): Consent of program director.

May be repeated for credit. Does not count for PE credit.

Typically Offered: Fall Only

MILS 2292 - Conference Course

1 hour Independent study designed to supplement the military science curriculum by a student's concentrated study in a narrower field of military skill or subject matter.

Prerequisite(s): Consent of program director.

May be repeated for credit. Does not count for PE credit.

Typically Offered: Spring Only

MILS 2343 - Leadership Training Camp (LTC)

3 hours A rigorous five-week summer camp conducted at an Army post, stresses leadership, initiative and self-discipline. No military obligation incurred. Completion of MILS 2343 qualifies a student for entry into the Advanced Course. Three different cycles offered during the summer, but spaces are limited by the Army. Candidates can apply for a space any time during the school year prior to the summer.

Open only to students who have not taken all four of MILS 1141, MILS 1142, MILS 2251 and MILS 2252 and who pass an ROTC physical examination. Pass/no pass only.

Typically Offered: Summer Only

MILS 3341 - Leadership I

3 hours Development of ability to evaluate situations, plan and organize training, learn military tactics, review case studies in leadership management and develop teaching and briefing skills.

Prerequisite(s): Consent of program director.

Corequisite(s): Concurrent enrollment in MILS 1180 mandatory.

Typically Offered: Fall Only

MILS 3342 - Leadership II

3 hours Practical application of squad and platoon leadership in tactical situations; operation of small unit communications systems. Development of the leaders' ability to express themselves, analyze military problems, and prepare and deliver logical solutions. Demanding physical fitness training and performance-oriented instruction, in preparation for Summer Field Training.

Prerequisite(s): Consent of program director.

Corequisite(s): Concurrent enrollment in MILS 1180 mandatory.

Typically Offered: Spring Only

MILS 3443 - Leadership Development Assessment Course

4 hours A five-week off-campus field training course stressing the practical application of leadership management, with emphasis on tactical and technical military field skills.

Recommended: MILS 3341, MILS 3342.

Open only to students who have successfully completed MILS 3341 and MILS 3342, Pass/no pass only.

Typically Offered: Summer Only

MILS 4341 - Advanced Leadership I

3 hours Stresses leadership qualities necessary of Command and Staff functions and operations. Plan and conduct meetings, briefings and conferences. Introduction to the Army Logistical System and the Personnel Management System. Preparation of after-action reports. Plan and conduct physical training programs.

Prerequisite(s): Consent of program director.

Corequisite(s): Concurrent enrollment in MILS 1180 mandatory.

Typically Offered: Fall Only

MILS 4342 - Advanced Leadership II

3 hours Provides students with a basic working knowledge of the Military Justice System with emphasis on company-level actions and requirements, including Law of Land Warfare. Examines the ethical standards, professional roles, responsibilities, and uniqueness of the profession of officership.

Prerequisite(s): Consent of program director.

Corequisite(s): Concurrent enrollment in MILS 1180 mandatory.

Typically Offered: Spring Only

MILS 4391 - Conference Course

3 hours Independent study on an individual basis on current topics in military science. Performance will be assessed by oral examination, written test or research paper as arranged.

Prerequisite(s): Consent of program director.

May be repeated for credit.

Typically Offered: Fall Only

Music Applied Private Lessons (Concentration)

MUAC 1501 - Piano

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1502 - Organ

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1503 - Voice

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1504 - Violin

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1505 - Viola

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1506 - Cello

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1507 - Double Bass

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1508 - Flute

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1509 - Oboe

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1511 - Clarinet

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1512 - Saxophone

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1513 - Bassoon

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1514 - French Horn

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1516 - Trumpet

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1517 - Trombone

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1518 - Euphonium

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1519 - Tuba

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1521 - Percussion

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1522 - Harp

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1526 - Jazz Guitar

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1527 - Guitar

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1528 - Harpsichord

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1532 - Jazz Piano

1–2 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 1533 - Jazz Saxophone

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAC 1536 - Jazz Trumpet

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAC 1537 - Jazz Trombone

1–3 hours Lower-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAC 1540 - Private Lessons (Concentration) in Electronics

2 hours Students who have been accepted with electronics as their concentration instrument meet with their private instructor on a weekly basis to gain expertise in electronics. Study includes a variety of approaches to create audio and audio/visual music using electronic devices including computing devices (computers/tablets/phones), electronic audio hardware (analog synthesizers/digital controllers), and audio/arts technology software (audio production/video production/music programming languages). Lessons may include study in electronics performance, production, engineering and creativity.

Prerequisite(s): Consent of instructor.

MUAC 3540

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3501 - Piano

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3502 - Organ

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3503 - Voice

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3504 - Violin

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3505 - Viola

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3506 - Cello

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3507 - Double Bass

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3508 - Flute

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3509 - Oboe

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3511 - Clarinet

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3512 - Saxophone

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3513 - Bassoon

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3514 - French Horn

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3516 - Trumpet

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3517 - Trombone

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3518 - Euphonium

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3519 - Tuba

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3521 - Percussion

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3522 - Harp

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3526 - Jazz Guitar

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3527 - Guitar

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3528 - Harpsichord

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3531 - Jazz Piano

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3532 - Jazz Saxophone

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3533 - Jazz Voice

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3536 - Jazz Trumpet

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3537 - Jazz Trombone

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3538 - Jazz Bass

1–3 hours Upper-level applied music, private lessons. Variable credit for concentrations.

Curriculum requirements in Music Applied Private Lessons for concentrations are 2 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3539 - Jazz Composition and Arranging

1–3 hours Upper level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): Consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAC 3540 - Private Lessons (Concentration) in Electronics

2 hours Students who have been accepted with electronics as their concentration instrument meet with their private instructor on a weekly basis to gain expertise in electronics. Study includes a variety of approaches to create audio and audio/visual music using electronic devices including computing devices (computers/tablets/phones), electronic audio hardware (analog synthesizers/digital controllers), and audio/arts technology software (audio production/video production/music programming languages). Lessons may include study in electronics performance, production, engineering and creativity.

Prerequisite(s): MUAC 1540 and consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

Music Applied Private Lessons (Major)

MUAM 1501 - Piano

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1502 - Organ

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1503 - Voice

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1504 - Violin

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1505 - Viola

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1506 - Cello

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1507 - Double Bass

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1508 - Flute

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1509 - Oboe

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1511 - Clarinet

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1512 - Saxophone

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1513 - Bassoon

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1514 - French Horn

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1516 - Trumpet

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1517 - Trombone

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1518 - Euphonium

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1519 - Tuba

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1521 - Percussion

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1522 - Harp

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1527 - Guitar

1–5 hours Lower-level applied music, private lessons. Variable credit for majors. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 1528 - Harpsichord

1–5 hours Lower-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3501 - Piano

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3502 - Organ

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3503 - Voice

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3504 - Violin

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3505 - Viola

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3506 - Cello

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3507 - Double Bass

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3508 - Flute

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3509 - Oboe

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3511 - Clarinet

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3512 - Saxophone

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3513 - Bassoon

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3514 - French Horn

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3516 - Trumpet

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3517 - Trombone

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3518 - Euphonium

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3519 - Tuba

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3521 - Percussion

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3522 - Harp

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3527 - Guitar

1–5 hours Upper-level applied music, private lessons. Variable credit for majors. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAM 3528 - Harpsichord

1–5 hours Upper-level applied music, private lessons. Variable credit for majors.

Curriculum requirements in Music Applied Private Lessons for majors are 2–4 credit hours per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Music Applied Private Lessons (Secondary)

MUAS 1501 - Piano

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1502 - Organ

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1503 - Voice

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1504 - Violin

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1505 - Viola

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1506 - Cello

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1507 - Double Bass

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1508 - Flute

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1509 - Oboe

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1511 - Clarinet

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1512 - Saxophone

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1513 - Bassoon

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1514 - French Horn

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1516 - Trumpet

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1517 - Trombone

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1518 - Euphonium

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1519 - Tuba

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1521 - Percussion

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1522 - Harp

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1524 - Vocal Coaching

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1525 - Baroque Harp

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1526 - Jazz Guitar

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1527 - Guitar

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1528 - Harpsichord

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 1531 - Keyboard Continuo Playing

1–2 hours Lower-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3501 - Piano

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3502 - Organ

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3503 - Voice

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3504 - Violin

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3505 - Viola

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3506 - Cello

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3507 - Double Bass

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3508 - Flute

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3509 - Oboe

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3511 - Clarinet

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3512 - Saxophone

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3513 - Bassoon

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3514 - French Horn

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3516 - Trumpet

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3517 - Trombone

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3518 - Euphonium

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3519 - Tuba

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3521 - Percussion

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3522 - Harp

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3523 - Functional Piano

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3524 - Vocal Coaching

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3525 - Baroque Harp

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3527 - Guitar

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries. Classical guitar.

Prerequisite(s): Enrollment only by audition.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3528 - Harpsichord

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3531 - Keyboard Continuo Playing

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAS 3532 - Early Instruments

1–2 hours Upper-level applied music, private lessons. Variable credit for secondaries.

Curriculum requirements in Music Applied Private Lessons for secondaries are 1 credit hour per term/semester. Exceptions must have the consent of the dean of the College of Music. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Music Audio Engineering

MUAE 2100 - Sound Engineering

3 hours Introductory exploration and practice in sound engineering. Concepts in sound physics and acoustics are demonstrated and explored within a variety of audio production techniques and studio workflows, facilitating collaborative creative engagement in sound and music media.

Prerequisite(s): MUAE 3100 and PHYS 1270.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUAE 3100 - Fundamentals of Digital Audio Workstations

3 hours Project-based learning of basic to intermediate-level techniques in audio, MIDI, and audio-visual production using industry-standard software applications.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAE 3200 - Digital Audio Workstation Techniques

3 hours Continuation of MUAE 3100. Project-based learning of advanced-level techniques in audio, MIDI, and audio-visual production using industry-standard software applications.

Prerequisite(s): MUAE 3100 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUAE 3300 - Techniques of Mixing and Mastering

3 hours Advanced techniques in recording production meeting professional standards in the delivery of audio mix masters. Techniques in signal flow, signal processing, frequency utilization in mixing, and loudness mastering are explored, in addition to the delivery of professional audio master delivery formats.

Prerequisite(s): MUAE 3100; MUAE 2100, MUCO 2300, MUAE 3200 suggested.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAE 3400 - Album Making, Pre- to Post-Production

3 hours Project based class consisting of demoing, recording, editing, mixing, mastering and strategizing release of an EP of student music in any style. Students must bring preexisting demos and sketches first class. Professional producers are invited as guest speakers. Collaborative groups will be formed to work on each other's projects.

Prerequisite(s): MUAE 3100, MUAE 3300.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAE 3950 - Commercial Songwriting

3 hours Intermediate/advanced skill development in expressive songwriting (lyrics, form, rhythm, harmony, melody) and demo recording using digital audio workstations.

Prerequisite(s): MUAE 3100 or consent of instructor.

Applies to Commercial Music minor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUAE 4500 - Commercial Music Capstone

3 hours Senior Commercial Music Capstone project.

Prerequisite(s): MUAE 3100, MUAE 3200, and MUAE 3400, with grade of C or better (or instructor approval).

Jazz Studies majors may apply MUJS 4720 towards the Commercial Music minor in lieu of MUAE 4500, with instructor approval.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Music Business

MUCE 2900 - Special Problems

1–3 hours Special Problems.

Prerequisite(s): Consent of College.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCE 4000 - Music Business and Entrepreneurship

3 hours Provides students with music business foundations as well as planning and launching a musical venture. Introduction to the entrepreneurial strategies and diverse trends used to embark on professional music careers. Compile a professional portfolio, create or improve their own websites, and implement a plan of action for a music business plan based on their specific interests and needs.

Prerequisite(s): Consent of faculty, and sophomore status, and 2.75 GPA.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCE 4010 - Marketing for Musicians

3 hours Designed to develop marketing skills and an understanding of techniques and strategies required to promote artistry or musical venture.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4020 - Music Leadership and Performing Arts Management

3 hours Provides the tools and resources to create, develop, facilitate, and evaluate performing arts organizations. Case studies focus on real-life situations faced by arts organizations as exemplified in the required textbook. Develop essential skills in performing arts administration including board relations, management of volunteers, audience development, organizational management and leadership, venue management, and strategic planning for mission-driven organizations. Develop an understanding of the structure of music and arts non-profit organizations and the relationship between leaders, volunteers, marketing, and fundraising.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4030 - Music Entrepreneurship Practicum/ Internship

3 hours Practicum with an arts organization, music business, or other relevant institution as approved by the area coordinator in music business. Experiences also help develop a professional portfolio with a track record of music business and arts administration experience, making one more competitive in the marketplace.

Prerequisite(s): MUCE 4000 and consent of faculty.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4040 - Music Law and Finance

3 hours Course covers principles of music law, music copyright issues, contract negotiation, funding opportunities, and financial management for music business and entrepreneurship.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4050 - Artist Management and Touring

3 hours Understand the roles of a manager, and the management team, and their significance in the development of an artist's career. Learn why an artist needs a manager, the keys to finding the right one, what a typical management contract looks like, artist income streams, how to tour, and strategies for planning and developing an artist's career. Apply these concepts to begin self-managing or lead to careers in artist and talent management.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4060 - Beginning Digital Audio Production for Music Entrepreneurs

3 hours Introduction to building a recording studio business and music production techniques using industry-standard DAW (Digital Audio Workstation) software.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4070 - Business of Music in Media

3 hours A practical study of the music industry around visual media production. Discusses career options, roles and responsibilities, sources of revenue, copyright, publishing, recording and production, contracts, and business strategies.

Prerequisite(s): MUCE 4000.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4890 - Studies in Music Entrepreneurship

1–3 hours Organized classes specifically designed to accommodate the needs of students and demands of program development that are not met by the regular offerings. Short courses and workshops on specific topics organized on a limited-offering basis.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4900 - Special Problems

1–3 hours Special problems in music entrepreneurship.

Prerequisite(s): Consent of College.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCE 4910 - Special Problems

1–3 hours Special Problems in music entrepreneurship.

Prerequisite(s): Consent of College.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Music Composition

MUCP 1180 - Contemporary Materials and Techniques I

2 hours (2;2) Basic technical and creative skills, survey of recent music literature.

Prerequisite(s): Concurrent enrollment in MUTH 1400/MUTH 1410 or MUTH 1500/MUTH 1510, or successful completion of MUTH 1400/MUTH 1410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 1190 - Contemporary Materials and Techniques II

2 hours Continuation of MUCP 1180.

Prerequisite(s): MUCP 1180. Completion of or concurrent enrollment in MUTH 1500/MUTH 1510. Concurrent enrollment in MUAC or MUAM lessons.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 2080 - Secondary Composition I

1 hour (1;0) Writing small works in contemporary styles.

Prerequisite(s): MUCP 1180. Consent of college.

Corequisite(s): Concurrent enrollment in MUCP 2200 required.

May be repeated for credit, contingent on a grade of B or better. Primarily for non-composition majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 2180 - Intermediate Composition I

1 hour (1;0)

Writing in small forms for simple media in contemporary styles.

Prerequisite(s): MUCP 1190 with B or better. MUTH 1500 and MUTH 1510 with B or better. Concurrent enrollment in MUAC or MUAM lessons.

Corequisite(s): Concurrent enrollment in MUCP 2200 required.

For composition majors only. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 2190 - Intermediate Composition II

1 hour (1;0) Writing in small forms for simple media in contemporary styles.

Prerequisite(s): MUCP 2180 with B or better. MUTH 2400 and MUTH 2410 with B or better. Concurrent enrollment in MUAC or MUAM lessons.

Corequisite(s): Concurrent enrollment in MUCP 2200 required.

For composition majors only. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 2200 - Composition Seminar

1 hour Weekly meeting for students enrolled in sophomore-level composition lessons. Includes survey of contemporary repertoire, discussion of compositional techniques, and professional development for composers.

Corequisite(s): Concurrent enrollment in one of the following courses: MUCP 2080, MUCP 2180, MUCP 2190.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUCP 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 3090 - Class Composition

3 hours (2;1) Beginning problems in composition; composition and study of contemporary materials and techniques.

Prerequisite(s): MUTH 2500 and MUTH 2510 or consent of instructor.

For non-composition majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 3180 - Advanced Composition I

2–3 hours (3;0) Continuation of MUCP 2190. Extended works for larger combinations of instruments or voices.

Prerequisite(s): MUCP 2190 with B or better. MUTH 2500 and MUTH 2510 with B or better. Concurrent enrollment in MUAC or MUAM lessons or consent of college.

For composition majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 3190 - Advanced Composition II

2–3 hours (0;3) Continuation of MUCP 3180.

Prerequisite(s): MUCP 3180 with B or better. MUTH 2500 and MUTH 2510 with B or better. Concurrent enrollment in MUAC or MUAM lessons or consent of college.

For composition majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 3320 - Instrumentation

3 hours Basic ranges, transpositions and terminology; transcriptions for instrumental combinations. Score study and rehearsal attendance required.

Prerequisite(s): MUTH 2500, MUTH 2510. MUCP 2190 or MUCP 3090 (with a grade of B or better); or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 3670 - Introduction to Electroacoustic Music

3 hours (3;1) Study of the theory and practice of electroacoustic composition, including a survey of the literature, audio techniques and studio hardware/software use. Course projects on electroacoustic music applications, practical exercises and original composition.

Prerequisite(s): 6 credit hours of MUCP courses with grades of B or better or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4080 - Secondary Composition II

2–3 hours (3;0) Writing small works in contemporary styles.

Prerequisite(s): MUCP 2080 or MUCP 3090, or equivalent.

For non-composition majors. May be repeated for credit, contingent on a grade of B or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4180 - Advanced Composition III

2–3 hours (0;3) Continuation of MUCP 3190. Advanced projects for various media.

Prerequisite(s): MUCP 3190 (with a grade of B or better).

For composition majors only. May be repeated for credit, contingent on a grade of B or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4195 - Senior Composition Capstone Project

3 hours (1;0;2) Continuation of MUCP 4180. Production of senior composition capstone project.

Prerequisite(s): MUCP 4180 (with a grade of B or better) and consent of faculty.

Individual instruction.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4320 - Orchestration

3 hours Historical survey of orchestrational practices, with emphasis on contemporary approaches. Creation of original works or transcriptions for orchestra. Score study and rehearsal attendance required.

Prerequisite(s): MUCP 3320 (with a grade of B or better) and MUCP 2190, or consent of college.

Meets with MUCP 5320.

Primarily for composition majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 4325 - Digital Orchestration

3 hours Training in advanced techniques and technical practices around digital orchestration—MIDI programming, sample selections, and DAW workflows facilitating the production of lifelike virtual digital band and/or orchestra recordings.

Prerequisite(s): MUCP 3320 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 4550 - Sonic-Visual Aesthetics

3 hours Students explore and address the relationship of sound to picture—outlining the correlative esthetic components, discussing their impact on perception, and putting them into practice by creating original sound scores for a collection of visual works.

Prerequisite(s): Consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 4560 - Music in Film and Media

3 hours Students explore music in film and visual media, outlining skills for critical listening and viewing of audio-visual works. Modes of creative practice and interaction between filmmakers and composers are discussed and explored in the analysis of films and in collaborative student project assignments.

Prerequisite(s): MUCP 4550 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4590 - Intermedia Performance Arts

2 hours Introduction to intermedia performance through class performance, repertoire analysis, historical context and readings of critical texts. Production and performance of individual and group projects in the presentation of intermedia compositions, emphasizing computer music media and utilizing the resources of the Merrill Ellis Intermedia Theater. Open to undergraduate students in music and other related fields in the arts, humanities and sciences.

Prerequisite(s): Consent of college.

Corequisite(s): MUEN 4595.

May be repeated for credit for a maximum of 4 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4685 - Topics in Composition

3 hours Advanced projects in composition focusing on compositional techniques, practices, and analytical approaches. May be repeated for credit.

Prerequisite(s): MUCP 3180, MUCP 4080, or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4690 - Topics in Computer Music Media

3 hours Advanced studies in computer music and related media focusing on compositional techniques, interactive systems, software tools, hardware design, performance practices, and analytical approaches. May be repeated for credit.

Prerequisite(s): MUCP 3670 or consent of college.

Same as MUCP 5690.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4695 - Topics in Contemporary Music

3 hours Advanced research in contemporary music focusing on repertoire, contemporary practices, and analytical approaches. May be repeated for credit.

Prerequisite(s): MUTH 2500 & MUMH 3510 or consent of college.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4890 - Studies in Music Composition

1–3 hours Organized classes specifically designed to accommodate the needs of students and demands of program development that are not met by the regular offerings. Short courses and workshops on specific topics organized on a limited-offering basis.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUCP 4900 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4910 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUCP 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Music Education

MUED 1130 - Foundations in Music

1 hour (2;0) Development of musical concepts and skills in listening and performance through use of elementary school music program materials and activities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUED 2310 - Introduction to Music Education

2 hours (2;0) Introduction to the music education profession, including an exploration of the skills, characteristics, and attributes of music educators. Students discuss the philosophical and practical issues in music education, complete introductory microteaching exercises, and develop a preliminary teaching philosophy.

A prerequisite for MUED 3100 and MUED 3200.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 3100 - Music Education in Childhood

3 hours (3;0) An overview of child development related to teaching music from birth to Grade 5. Topics include lesson planning; curriculum design; media usage for singing, moving, and playing; cultural awareness; anti-bias; and inclusive teaching practices within a variety of pedagogical approaches, such as Kodály, Orff, and MLT.

Prerequisite(s): MUED 2310 or consent of college. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUED 3200 - Music Education in Adolescence

3 hours Introduction to music teaching with students in secondary settings (Grades 6–12). Topics include adolescent development, learning theories, classroom management, lesson planning, recruitment and retention, creativity, creating an effective classroom climate, and early career planning. Ensemble classrooms are of special focus in this course.

Prerequisite(s): MUED 2310 and MUED 3100 or consent of college. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction

3 hours Techniques for instructional planning (K–6) utilizing aspects of various teaching approaches (Orff, Kodály, Dalcroze and eclectic). Principles of sequentially organized materials and activities for the young learner in general music.

Prerequisite(s): MUED 3100 and MUED 3200. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools

3 hours

Rehearsal objectives, instructional techniques and materials specific to beginning band and orchestra; rehearsal management and organization; visual and aural diagnostic skills for teaching performance fundamentals; lab school field experience.

Prerequisite(s): MUED 3100, MUED 3200 and MUAG 3800. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUED 4203 - Secondary Choral Methods

3 hours Pedagogical practices that complement the secondary choral music classroom, (Grades 6–12), middle school—high school.

Prerequisite(s): MUED 3100, MUED 3200 and MUAG 3820. MUAG 3820 may be taken concurrently with MUED 4203. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUED 4209 - Music Performance: Instrumental

3 hours (3;0) Principles of music performance using the band and/or orchestra ensemble. Foundations of performance on band and/or stringed instruments, rescoring and arranging for band and/or orchestra, fundamentals of marching band, performance practices, and standard band and/or orchestra literature.

Prerequisite(s): MUED 3100 and MUED 3200. Must be a Music Education major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUED 4900 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 4910 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUED 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Music Ensembles

MUEN 2602 - Brass Ensembles

1 hour (0;3) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 2611 - Jazz Ensembles

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 2621 - String Ensembles

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 2625 - Wind Ensembles

1 hour (0;2) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 2626 - Mariachi Aguilas

1 hour (0;2) Study of traditional and contemporary repertoire, focusing on the socio-cultural and stylistic aspects. Opportunities for performance on campus and in the local community.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 3040 - Opera Theatre

1 hour (0;3) Practical operatic experience in performing portions of or complete operas; integration of music, acting and staging of an opera.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUEN 4530 - Early Music Ensembles

1 hour (0;3) Performance of less well-known vocal and instrumental music from the period 1200 to 1800.

Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 4540 - Collegium Musicum

1 hour (0;3) Performance of less well-known vocal and instrumental music from the period 1200 to 1800.

Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 4585 - Nova Ensemble

1 hour (0;3) Performance of contemporary chamber works for mixed ensembles.

Prerequisite(s): Consent of college: audition required.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUEN 4595 - Intermedia Performance Arts

1 hour (0;3) Performance component of MUCP 4590, to be taken concurrently.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

Music History and Literature, Musicology

MUMH 1610 - Music as Communication

(MUSI 1307)

3 hours Introduction to issues of music seen as a form of human communication with emphasis on developing listening skills and critical thinking. Includes discussion of Western and non-Western music based on case studies.

Open to majors in other fields. Must be taken prior to MUMH 3500-MUMH 3510.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 2040 - Music Appreciation

(MUSI 1306)

3 hours Music masterpieces; elements of music, form and design; relation of music to other areas of cultural development; live and recorded performances.

For non-music majors.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 2050 - Sounds and Cinema

3 hours This course develops critical and analytical approaches to the soundtrack, music's role in the soundtrack, and the relation of soundtrack and imagetrack (especially relating to music) on small-scale and large-scale (narrative) levels. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 2060 - History of Rock

3 hours Explores key moments in the history of American popular music from 1945 to 2000. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 2080 - Music and Sound in Video Games

3 hours Students explore key moments in the history of video game music from 1950 to 2020, think critically and communicate clearly about video game music, its history, and its function. As video game music differs from more traditional types of music, so too are the ways that students demonstrate mastery of the subject. Students engage with monographs, videos, voiced-over recordings of gameplay, and collaborative projects as ways to demonstrate their knowledge of games and gaming music.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 3000 - Nineteenth-Century Music

3 hours Music in romantic humanism; lectures, recordings, art works and live performances.

For non-music majors.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 3010 - Twentieth-Century Music

3 hours Music since Impressionism; changing currents in culture and society. Lectures, recordings, art works and live performances.

For non-music majors.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 3100 - Music, Gender, Sexuality

3 hours This course explores various intersections between music, gender, and sexuality. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 3200 - Music as Politics

3 hours This course explores various intersections between music, activism, and politics. Previous experience with musical performance (including the ability to read music) is not required or expected.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 3500 - Music History and Literature to 1750

3 hours (3;1) Comprehensive coverage of stylistic developments, genres, and creative figures in Western art music from the Middle Ages to the mid-18th century.

Prerequisite(s): MUMH 1610, MUMH 2050,MUMH 2060, MUMH 3100,or MUMH 3200 .

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUMH 3510 - Music History and Literature Since 1750

3 hours (3;1) Comprehensive coverage of stylistic developments, genres, and creative figures in Western art music from the Classic period to the present.

Prerequisite(s): MUMH 1610, MUMH 2050, MUMH 2060, MUMH 3100, or MUMH 3200 .

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 3520 - Issues in Western Music History

3 hours (3;1) An investigation of specific issues in the history of Western music from 400 AD to today through case studies of significant works, composers, and techniques, as well as their role and place in the development of Western society and the building of identities within certain ethnic, religious, or economically defined groups.

Prerequisite(s): MUET 3060.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 4000 - Seminar in Music History

3 hours Seminar on a selected topic in music history.

Prerequisite(s): MUMH 3500 and MUMH 3510; or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUMH 4800 - Nazism, Judaism and the Politics of Classical Music in Germany

3 hours Explores the connections between Nazi ideology, politics, anti-Semitism and classical music in Nazi Germany.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 4810 - Jews, Judaism, Anti-Semitism and Opera

3 hours Explores different roles of Jews in opera, including sympathetic representations by Jewish composers, and negative stereotyping by both Jewish and non-Jewish composers.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 4900 - Special Problems

1–3 hours

Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 4910 - Special Problems

1–3 hours Open to advanced undergraduate students who are capable of developing a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUMH 4920 - Senior Thesis in Music History

3 hours Major research paper on a specialized topic in music history appropriate to advanced undergraduate standing.

Prerequisite(s): MUMH 1610, MUMH 3500, MUMH 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

Music Laboratories

MULB 1801 - A Cappella Choir

1 hour (0;5) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1802 - Concert Choir

1 hour (0;5) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1803 - Camerata

1 hour (0;5) This treble choir is comprised of soprano and alto singers. No audition is required.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MULB 1805 - Orchestra

1 hour (0;6) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1806 - Wind Symphony

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1807 - Wind Orchestra

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1808 - Jazz Lab Band

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MULB 1809 - Wind Ensemble

1 hour (0;6) The Wind Ensemble is dedicated to broadening the artistic level and interest of its members while performing challenging music of artistic and historical significance. The members of the ensemble are selected from the most talented musicians in the Wind Studies area. Through flexible instrumentation, members of the Wind Ensemble will broaden and expand performance skills to experience the highest level of music making.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1810 - Brass Band

1 hour (0;4) The Brass Band provides students with the unique opportunity to perform in one of the most widely known wind mediums throughout the world. Similar to the British Brass Band,

the American Brass Band provides its members the opportunity to develop the highest standards of technical and musical playing. Emphasis is given to the development of tone quality, intonation, rhythm, and virtuosic technique through performance of a wide variety of literature, including masterwork transcriptions, traditional marches, and original works.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1811 - Accompanying

1 hour (0;4) Studio accompanying or sight-reading classes according to capability.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1812 - Marching Band

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1813 - Concert Band

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1815 - Chorale

1 hour (0;5)

This choir is comprised of tenor and bass singers. No audition is required.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1816 - University Singers

1 hour (0;5) Composed of 60-70 voices, primarily undergraduate students. Repertoire includes selections from a broad range of choral literature. Rehearsals: 4 hours per week.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1817 - Jazz Guitar Laboratory

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1818 - Jazz Repertory Laboratory

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1819 - Commercial Music Laboratory

1 hour (0;4) Aural memorization and performance of off-the-record faithful renditions and fresh arrangements of commercial music cover songs.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1820 - Jazz Singers Laboratory

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MULB 1821 - Latin Jazz Lab

1 hour (0;4) May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1822 - Electronics Ensemble

1 hour Students participating in the Electronics Ensemble perform using electronics including computers, tablets, smart phones, electronic instruments, and/or other electronic hardware devices and interfaces. This ensemble is required for Electronics Concentrations and is otherwise available by audition and through consultation with the student's area of concentration. The ensemble collaborates on group performances, but members may also be assigned to other performing ensembles as appropriate.

Prerequisite(s): Audition.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1823 - Commercial Music Lab

1 hour Aural memorization and performance of off-the-record faithful renditions and fresh arrangements of commercial music cover songs.

Prerequisite(s): Instructor approval.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1824 - Jazz String Lab

1 hour The Jazz String Lab represents the UNT Jazz Strings program. It focuses on performing with a large string section accompanied by a rhythm section. The repertoire includes jazz standards and original material as well as alternative styles and popular music.

Prerequisite(s): Instructor consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MULB 1825 - Classical Guitar Laboratory

1 hour (0;4) Laboratory ensemble for Classical Guitar majors.

Restrictions: Audition or consent of instructor.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Music Theory

MUTH 1300 - Explorations in Music I

3 hours Introduction to basic musicianship including elements of music, staff, clefs, key signatures, scales, time signatures and notation. Credit in this course may not be applied to a music degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 1350 - Explorations in Music II

3 hours Introduction to basic musicianship course for the non-music major that covers analysis, part-writing, figured bass realization, and harmonization.

Prerequisite(s): MUTH 1300 or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 1400 - Theory I

(MUSI 1311)

2 hours (2;0) Introduction to the elements of music including rhythm, meter, pitch, and diatonic harmony.

Prerequisite(s): Limited to current music majors, or with consent of instructor.

Recommended: Concurrent enrollment in MUTH 1410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUTH 1410 - Aural Skills I

(MUSI 1116)

1 hour (2;1) Reinforcement of theoretical concepts presented in MUTH 1400 via singing, ear training and conducting experiences.

Prerequisite(s): Limited to current music majors, or with consent of instructor.

Recommended: Concurrent enrollment in MUTH 1400.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 1500 - Theory II

(MUSI 1312)

2 hours (2;0) Continued study of diatonic harmony and introduction to chromatic harmony and small forms.

Prerequisite(s): MUTH 1400 and MUTH 1410, both with a grade of C or better.

Corequisite(s): MUTH 1510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered:

MUTH 1510 - Aural Skills II

(MUSI 1117)

1 hour (2;1) Reinforcement of theoretical concepts presented in MUTH 1500 via singing, ear training, keyboard, and conducting experiences.

Prerequisite(s): MUTH 1400 and MUTH 1410, both with a grade of C or better.

Corequisite(s): MUTH 1500.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 2400 - Theory III

(MUSI 2311)

2 hours (2;1) Continued study of chromatic harmony, modulation, and form.

Prerequisite(s): MUTH 1500 and MUTH 1510, both with a grade of C or better.

Corequisite(s): MUTH 2410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 2410 - Aural Skills III

(MUSI 2116)

1 hour (2;0) Reinforcement of theoretical concepts presented in MUTH 2400 via singing, ear training, keyboard and conducting experiences.

Prerequisite(s): MUTH 1500 and MUTH 1510, both with a grade of C or better.

Corequisite(s): MUTH 2400.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 2500 - Theory IV

(MUSI 2312)

2 hours Analysis of the musical style of post-1900 pieces that embody new approaches to rhythm, pitch space, gesture, texture, form, and timbre.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Corequisite(s): MUTH 2510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 2510 - Aural Skills IV

(MUSI 2117)

1 hour (2;0) Reinforcement of theoretical concepts presented in MUTH 2500 via singing, ear training, keyboard and conducting experiences.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Corequisite(s): MUTH 2500.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 2900 - Special Problems

1–3 hours Prerequisite(s): Consent of college.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 3410 - Sixteenth-Century Counterpoint

3 hours (3;0) Contrapuntal procedures of 16th-century composers. Writing motets and madrigals in two to four voices.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 3420 - Eighteenth-Century Counterpoint

3 hours Contrapuntal procedures of music from the first half of the 18th century.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 3510 - Form Analysis

3 hours Structural principles of 18th- and 19th-century music determined by analysis of major composers' works, larger instrumental and vocal forms.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 3530 - Form in 20th- and 21st-Century Popular Song

3 hours Introduction to common forms of English-language popular song, from early country and blues to Top 40, hip hop, and experimental rock songs, focusing on formal schemas involving text, rhythm, harmony, and texture.

Prerequisite(s): MUTH 2400 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 3540 - Harmonic Analysis

3 hours Harmonic principles of 18th- and 19th-century Western music determined by analysis of a wide variety of works, including larger instrumental and vocal forms, and by applying diverse analytical methods.

Prerequisite(s): MUTH 2500.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 4370 - Schenkerian Analysis

3 hours (3;0) Analysis of tonal music according to the theory of structural levels and methods of graphic analysis developed by Heinrich Schenker.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 4520 - Twentieth-Century Techniques

3 hours Detailed analysis of compositional techniques as applied to representative works of the 20th and 21st centuries.

Prerequisite(s): MUTH 2500 and MUTH 2510, both with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 4680 - Advanced Topics in Music Theory

3 hours Investigation and research on subjects within the discipline of music theory and analysis. For advanced music students.

Prerequisite(s): MUTH 2500, MUTH 2510, MUMH 3500, MUMH 3510; or consent of instructor.

May be repeated for credit for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 4900 - Special Problems

1–3 hours Open to advanced undergraduate students who research or investigate a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 4910 - Special Problems

1–3 hours Open to advanced undergraduate students to research or investigate a problem independently. Project is chosen by the student and instructor and developed through conferences and approved activities under the direction of the instructor, who may require a final project.

Prerequisite(s): Consent of college.

May be offered when other required courses are unavailable. Not open to graduate students. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

MUTH 4920 - Advanced Colloquium in Music Theory

3 hours In consultation with the instructor, each student is to develop a major paper on a specialized topic in music theory, as appropriate to advanced undergraduate standing.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)
Typically Offered: Fall and Spring

MUTH 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $50.20 (instructional fees), $45 (differential fees)

Nuclear Engineering Technology

NUET 2900 - Special Problems

1–4 hours Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 3910 - Principles of Nuclear Technology

3 hours Introduction to nuclear technology and radiation physics; includes sources of radiation, its interaction with matter, and radiation detection and measurement.

Prerequisite(s): MATH 1720, PHYS 2220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 3920 - Nuclear Instrumentation and Measurement

4 hours (3;2) Measurement of radioactive materials commonly encountered in commercial nuclear facilities; includes engineering and scientific principles, measurement techniques and data analysis.

Prerequisite(s): NUET 3910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 3930 - Radiation Biology and Safety

4 hours (3;2) The interaction of radioactive sources and living organisms; effects of both long- and short-term exposure to radiation; ionizing radiation, detection, measurement, shielding, exposure limiting, radiation handling and disposal.

Prerequisite(s): NUET 3910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 3970 - Electronic Devices and Controls

3 hours (2;3) Fundamentals of solid state electronic devices; their applications in amplifiers, digital logic, industrial controls and instrumentation; feedback and stability of electronic systems.

Recommended: ENGR 2405.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4050 - Nuclear Reactor Theory

3 hours A study of neutron transport theory and neutron diffusion mechanics as applied to nuclear fission and reactor core's criticality analysis and behavior. Multi-region core configurations and group diffusion theory included.

Prerequisite(s): MATH 1720, PHYS 3010, PHYS 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4780 - Senior Design I

2 hours Project teams specify, plan and design a product or process. Written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): NUET 3930, NUET 4050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4790 - Senior Design II

2 hours (1;3) Implement, test and demonstrate a product or process. Oral and written documentation required. Projects to be supplied by local industry whenever possible.

Prerequisite(s): NUET 4780.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4850 - Computational Methods for Nuclear Engineering Technology

4 hours (3;3) Computer design and analysis for nuclear reactors and shielding. Methodology and theory for codes representative of cross section preparation, criticality calculation, gamma ray shielding and dose estimation from air scattered radiation.

Prerequisite(s): NUET 3930, CSCE 1020 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4880 - Health Physics and Radiation Protection

3 hours (2;3) Study and analysis of current health physics issues, practices and implementation. Radiation protection guides for both external and internal exposure and the methodology for establishing guidelines are explored. Methods of evaluation of effectiveness, environmental sampling and protection methods for monitoring radiation are introduced.

Prerequisite(s): PHYS 1710/PHYS 1730; MATH 1720, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4900 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4910 - Special Problems

1–4 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4920 - Cooperative Education

1 hour Supervised industrial internship requiring a minimum of 150 hours of work per experience.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 3 semester credit hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4930 - Reactor Engineering Design and Operation

4 hours Theory and practice of commercial nuclear reactor operation. Overview of mass, momentum and energy conservation as it relates to nuclear power plants. Includes coupled neutronic/thermal models to study plant operations semi-quantitatively achieving an integrated plant understanding.

Prerequisite(s): NUET 3910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4940 - Electrical Power Generation and Transmission

3 hours Electric energy production and transmission, including AC generator construction and operation, power transformers, transmission lines and load-flow analysis; system modeling and computer applications.

Prerequisite(s): ENGR 2405.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4950 - Nuclear Plant Systems

3 hours Design and analysis of nuclear power plant normal operation and emergency response from a system point of view. Emphasis on cooling systems for the reactor and spent fuel, normal and emergency power supply, spectrum of Design Basis Accidents.

Recommended: MEET 3940, MEET 3990, NUET 3910.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

NUET 4970 - Modern Power Plant Design and Operation

3 hours Study and analysis of modern power plant engineering and technology including fossil and nuclear fueled. Heat generated mechanical and electrical power operations with alternative energy resources.

Prerequisite(s): MATH 1710/MATH 1720, and MEET 3990 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $52.70 (instructional fees), $16.25 (differential fees)

Nutrition

NUTR 1450 - Principles of Nutrition

(HECO 1322 or BIOL 1322)

3 hours Introduction to human nutrition in health from an examination of nutrients and body function to food choice and healthful eating behaviors. Energy needs are calculated, nutrient information is analyzed, and national food and nutrition reports are reviewed. The connection between nutrition and risk of chronic disease is described with nutrition practices that promote health emphasized. The food environment is examined from the perspective of making informed food choices in a complex marketplace.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

NUTR 2460 - Introduction to Nutrition Science

3 hours (3;2) Introduction to the relationship between nourishment, lifestyle choices and long-term health. Topics include classes, sources and functions of nutrients and their digestion, absorption and metabolism. Investigation of eating patterns using database technology demonstrates the relationship between food consumption and nutrition adequacy. The economic, cultural and psychological implications of food choices and eating behaviors are studied.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)
Typically Offered: Fall, Spring and Summer

NUTR 3460 - Healthy Sustainable Meals

3 hours Focuses on making climate friendly, resilient food choices through planning meals that reflect seasonality and availability while reducing consumer waste. Topics include designing sustainable meals with foods that are readily available, easily accessed, and compatible with household considerations such as equipment and skills needed to prepare meals; analyzing the nutritional contribution of sustainable meals; and strategies for meeting nutritional needs through sourcing of plant and animal foods in ways that conserve natural resources.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

NUTR 3560 - Life Cycle Nutrition

3 hours Relationship of nutrition requirements at all life stages, from conception to older age.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

NUTR 3660 - Community Nutrition

3 hours Application of nutrition knowledge utilizing community tools and resources available to promote health and prevent disease.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional fees), $15 (differential fees)

Operations and Supply Management

OPSM 3830 - Operations Management

3 hours Management of production emphasizing industrial enterprises; production objectives; design and improvement of processes, work methods and physical facilities; use of measurements and standards; production planning and control; quality control; budgetary and cost control; materials management.

Prerequisite(s): DSCI 2710.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

OPSM 4800 - Internship in Operations and Supply Management

3 hours Supervised work in a job related to the student's career objectives.

Prerequisite(s): OPSM 3830 and department approval.

Must be within two long terms/semesters of graduation at the time of the internship and have consent of department chair or internship director. Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

OPSM 4820 - Manufacturing Planning and Control

3 hours In-depth coverage of the function of production planning and control, including such topics as material requirements planning, capacity planning, master production scheduling, forecasting, production activity planning and control, and project management.

Prerequisite(s): OPSM 3830.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

OPSM 4830 - Productivity and Quality Management

3 hours Coverage of topics related to quality science and quality improvement including acceptance sampling, total quality management, process control and their impact on productivity.

Prerequisite(s): OPSM 3830.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

OPSM 4850 - Lean/Six Sigma

3 hours Involves the study and application of Lean/Six Sigma principles. Emphasis is placed on using Lean and Six Sigma philosophy, tools and techniques for material flow analysis, process and continuous improvement techniques, and employee development and empowerment as integral aspects of Lean manufacturing. Addresses not only Lean/Six Sigma techniques as applied throughout production processes but also the application of Lean extending upstream in coordination with suppliers. The associated integrative concepts of Lean and six sigma provide the framework for the course. Successful completion of the course with a grade of B or better, and a passing grade of 80% or better on the Six Sigma exam will earn the student Green Belt certification from the UNT Professional Development Institute.

Prerequisite(s): OPSM 3830.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

OPSM 4880 - Management of Projects and Systems

3 hours Investigation and study of the role of projects in contemporary organizations. Includes a presentation of the technical aspects pertaining to the management of complex projects and systems starting with conceptual design and advanced development, and continuing through detailed design, production and termination. Emphasis is placed on integrative concepts rather than isolated methodologies.

Prerequisite(s): OPSM 3830.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Philosophy

PHIL 1050 - Introduction to Philosophy

(PHIL 1301)

3 hours Survey of leading figures in the history of philosophy (from Ancient Greece, Medieval Europe, the Renaissance, Enlightenment, and the 20th century) and an examination of central areas of philosophy: metaphysics, epistemology, human nature, ethics, political theory and aesthetics.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 1400 - Ethics and Society

(PHIL 2306)

3 hours Survey of basic ethical theories and exploration of such issues as abortion, euthanasia, national security and civil liberties, affirmative action, the death penalty, extramarital sex, pornography, animal rights, world hunger, and the environment.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 1900 - Philosophy of Art

3 hours An examination of what makes something art, what makes someone an artist; how painting, music, literature, movies, and performance are similar and different; and the role of art in our social and political lives.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 2050 - Logic and Critical Thinking

(PHIL 2303)

3 hours Focus on critical thinking to develop the skills for making sound arguments and for evaluating the arguments of others in order to recognize the difference between arbitrary and well-reasoned judgments. Topics include deductive and inductive modes of practical reasoning, common fallacies, rules of inference, and the formal rules of logic.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 2070 - World Religions

(PHIL 1304)

3 hours Philosophical and social dimensions of Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam, and Humanism. Emphasizes the diversity of religious experience and traditions.

Core Category: Language, Philosophy and Culture
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 2500 - Environment and Society

3 hours Explores ethical, ecological and political dimensions of such international environmental issues as atmospheric and water pollution, global climate change, industrial agriculture, deforestation, biodiversity loss, and the relationship between environmental issues and social and political concerns.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 2600 - Ethics in Science

3 hours Survey of the philosophical relationships between ethics (including political and cultural values) and science (as a practice and form of inquiry). Topics include research ethics, experimentation on animals, biotechnology, information technology, gender in science, religion and science, and science policy.

Core Category: Language, Philosophy and Culture

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3100 - Aesthetics

3 hours Examination of the theories of the beauty of nature and art in the history of philosophy as represented by or found in painting, sculpture, music, literature, film and television to understand the nature of aesthetic experience, artistic expression and the relation of art to nature, truth, ethics, culture, technology and gender.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3120 - Social and Political Philosophy

3 hours Examines how people should live together in communities and what legitimate governing institutions best promote the ideals of freedom, justice, rights, democracy, equality and happiness. Topics include civil and human rights, social contract theory, economic justice, group identity, race and gender.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3130 - Philosophy of Race and Racism

3 hours A philosophical analysis of the meaning of race and the problem of racism. Examines the origins, concepts, and nature of race; the nature of racism, systematic racism, and racial oppression; and how racial justice and anti-racism can be achieved.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3140 - Religion and American Society

3 hours Subjects covered include religious pluralism in the United States, religion and civil rights, evolution and creationism, religion and gender, and religious response to cultural change.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3150 - Philosophy of Love, Sex and Sexuality

3 hours Philosophical questions about love, lust, desire, pleasure, sex, sexuality, sexual difference and sexual identity. Examines ethical, psychological, historical, and social aspects of dating apps, hookup culture, attraction, monogamy, consent, harassment, sexual orientation, and kink.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3160 - Philosophy of Death and Dying

3 hours An examination of philosophical issues concerning the nature and value of life, death, and dying from various perspectives. Topics include life-after-death and immortality, natural and unnatural deaths, suffering and life-saving medical care, murder and suicide, grief and loss, funerals and rituals, and zombies and ghosts.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3200 - Philosophy in Literature

3 hours Examination of how philosophical themes arise in works of literary fiction and the differences between a philosophical and literary approach. Topics include personal identity, consciousness, Stoicism, skepticism, mysticism, free will, ethics and justice, life and death, and God.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3225 - Philosophy and Film

3 hours A philosophical investigation into the nature and importance of film. Examines how films raise philosophical issues and illustrate thought experiments; how films are art; how they make arguments, provide knowledge and moral insight; what it means to say a film is realistic; and what is at stake in the way we interpret or read films.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3250 - Philosophy of Science

3 hours Examination of what science is and how it works. Topics include the nature of scientific explanation, the distinction between science and pseudo-science, scientific progress, the aims of science, and the role of social and economic values in scientific theories and practices.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3300 - Symbolic Logic

3 hours Symbolic analysis applied to logical problems, propositional logic, predicate logic and modal logic.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3310 - Ancient Greek Philosophy

3 hours Advanced examination of the origins of Western philosophy in Ancient Greek philosophers, including the pre-Socratics, Plato, and Aristotle.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3320 - Medieval Philosophy

3 hours Advanced examination of selected philosophical thought from Saint Augustine to the Renaissance. Philosophers might include Boethius, Anselm, Avicenna, Averroes, Aquinas, Duns Scotus, Grosseteste and William of Ockham.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3330 - Modern European Philosophy

3 hours Advanced examination of selected European philosophical thought from the Renaissance to the 19th century including Continental rationalism, British Empiricism, and Kant.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3340 - Nineteenth-Century Philosophy

3 hours Examination of major figures in European philosophy such as Hegel, Marx, Schopenhauer, Nietzsche and Kierkegaard. Topics include the nature of knowledge, religion, the role of history, political economy and the relationship of the individual to society.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3350 - Twentieth-Century Philosophy

3 hours Selected major figures and themes in Anglo-American and Continental philosophy including analytic philosophy, logical positivism, linguistic analysis, ordinary language philosophy, process philosophy, existentialism, phenomenology, pragmatism and post-Analytic philosophy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3360 - American Philosophy

3 hours Examination of the major American philosophies, including pragmatism and process philosophy. Figures might include C.S. Pierce, William James, John Dewey, George Herbert Mead, Alfred North Whitehead, Hilary Putnam and Richard Rorty.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3375 - Latin American Philosophy

3 hours

An examination of Latin American philosophical thought from the sixteenth to the twentieth century focusing on themes related to national identity, history, and culture.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3400 - Ethical Theory

3 hours Analysis of the important historical and contemporary theories of appropriate human conduct through a reading of major philosophers such as Aristotle, Aquinas, Hobbes, Hume, Kant, Mill and Nietzsche.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3440 - Bioethics

3 hours Examines the philosophical, social, and legal issues arising in medicine, biotechnology, and the life sciences. Questions the definition and significance of life and death, the nature of personhood and identity, and the extent of human freedom and individual responsibility. Topics include cloning, gene therapy, xenotransplantation, enhancement technologies, human longevity, and transhumanism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3450 - Philosophy of Technology

3 hours Examines the philosophical dimensions of making and using technology; the nature of technology; the role of technology in history and development; the politics of technology; the role of experiments and instruments in science; technology and nature; the ethical dimensions of biotechnology, information technology, and nanotechnology.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3475 - Philosophy of Climate Change

3 hours Examines the ethical and philosophical dimensions of climate change through an interdisciplinary exploration of such issues as climate justice, uncertainty and risk, individual and collective responsibilities for climate change and climate action, the role of science and technology in policy, and the ethics of geoengineering.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3500 - Christianity and Philosophy

3 hours Philosophical study of Christianity from its origins to the present, including Eastern Orthodoxy, Roman Catholicism, and Protestantism. Topics may include faith and reason, nature and grace, hope and redemption, love, evil and religious truth.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3510 - Hebrew Bible

3 hours Philosophical and ethical concepts of the Hebrew Bible compared with ancient pagan thought and subsequent Western culture. Concepts discussed include creation, revelation, holiness, faith, covenant, prophecy, idolatry, chosen people, justice, mercy, truth and peace.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3520 - Early Christian Thought

3 hours Selected first-century Christian documents in light of Dead Sea Scrolls, Roman mystery religions, and biblical and extra-biblical Hebrew, Aramaic and Greek writings.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic

3 hours An introduction to Jewish mysticism, presented in historical survey through lectures and readings from seminal texts: Sefer Yetzirah, Book of Radiance, Book of the Pious, The Treatise on the Left Emanation, Sepher Zohar, and Book of Reincarnations. Explores the major topics of Jewish mysticism, including Jewish cosmogony, apocalypse and eschatology, theosophy, word-mysticism, meditation, and rituals of power.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3540 - Judaism and Philosophy

3 hours Introduction to a wide range of Judaic texts—biblical, medieval and modern—that address Jewish law, history and thought from diverse points of view.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3560 - Judaism

3 hours Examination of the beliefs, practices, laws, and movements in Judaism from Biblical times to the present. Explores the diversity and multiplicity of Jewish lives, identities, and experiences in relation to other religions, cultures, and societies, as well as contemporary questions of prejudice, tolerance, and inclusion within and beyond Judaism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3570 - Islam and Philosophy

3 hours An examination of the major issues, figures, and texts of Islamic philosophy and theology, such as al-Kindi, al-Razi, al-Farabi, Ibn Sina (Avicenna), al-Ghazali, and Ibn Rushd (Averroes), as well as questions concerning the ultimate nature of the world, proofs of God's existence, reason and faith, ethics and the afterlife, science and politics, Islam and the modern world.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3600 - Philosophy of Religion

3 hours Examines the concepts, belief systems and practices of religions. Topics include religious experience, faith and reason, arguments for God's existence, the problem of evil, religious language, life after death, miracles, religion and science, and the conflicting claims of different religions.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3620 - Hinduism, Jainism, Sikhism

3 hours

An exploration of South Asian philosophical and religious traditions, including the Vedic roots of Hinduism, the ascetic path of Jainism, and the 15th-century devotional movement of Sikhism. Topics include the nature of reality, the meaning of life, freedom and suffering, and the pursuit of spiritual attainment through practices such as meditation and yoga.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 3630 - Jainism

3 hours An examination of one of the world's oldest religious and philosophical traditions from its origins in the 6th century BCE to its influence on contemporary figures, including Mahatma Gandhi, Dr. Martin Luther King Jr., Nelson Mandela, and the Dalai Lama. Topics include pacifism and non-violence, self-control, non-materialism,

compassion, meditation, and the relationship of the self to divine consciousness.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3650 - Religion and Science

3 hours Examination of the complex historical and contemporary relationship between sciences and religions. Historical elements focus on the rise of modern science and "the Galileo Affair." Theories of the relationship between the disciplines are also studied. Contemporary issues may include cosmology, religion and ecology, intelligent design and evolution, stem cell research, and artificial intelligence.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3660 - Religion and the Environment

3 hours Examines the assumptions, values, and practices of religions concerning nature and the environment from their textual, ceremonial, and historic sources to the ways they have been interpreted in religious traditions. May examine the contributions of Judaism, Christianity, Islam, Hinduism, Buddhism, Daoism, and Indigenous traditions to environmental discourses.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3670 - Chinese Philosophy

3 hours An examination of the philosophical, spiritual, and scholarly traditions of China with a focus on Confucianism from the Warring States period to the Song and Ming dynasties. Explores Confucianism as a moral philosophy, a political science, a ritual system, and a path of spiritual cultivation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3680 - Buddhism, Daoism, Shintoism

3 hours Philosophical study of East Asia from earliest times to the present, including ancient Chinese religion; Taoist, Confucian, Mohist and Legalist philosophies; Chinese Buddhism and Neo-Confucianism; the influence of Shinto, Buddhism and Neo-Confucianism upon medieval Japan; and Japanese philosophy since the Meiji Restoration.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3800 - Philosophy of Mind

3 hours Examination of the nature of perception and consciousness, the nature of mental events and mental states, and the relationship of the mind to the brain and the body. Topics include free will versus determinism, scientific reductivism, holism, the unconscious, behaviorism, artificial intelligence, free will, and the self.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3850 - Philosophy of Animals

3 hours An examination of the philosophical dimensions of animals, including the differences between humans and animals, how animals experience the world, how we should treat animals, the differences between domesticated and wild animals, what legal rights they have, and if animals can make art.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3900 - Philosophy of Food

3 hours Examination of the philosophical dimensions of food, agriculture, animals, eating and taste to explore the nature and meaning of food, how we experience it, the social role it plays, its moral and political dimensions, and how we judge it to be delicious or awful.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3960 - Topics in Religion

3 hours Topics and issues concerning religion and religious studies.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4053 - Introduction to Subantarctic Biocultural Conservation

3 hours Introduction to the subantarctic ecosystems and culture of southern South America (geography, climate, ethnography, environmental philosophy and ecology) and exposure to both the practical and theoretical aspects of biocultural conservation, including its interdisciplinary character integrating the sciences and humanities.

Prerequisite(s): Upper-level standing in the humanities or sciences.

Same as BIOL 4053.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4054 - Tracing Darwin's Path

3 hours Annual in-depth field course that introduces students to the sub-Antarctic biota, geography, history, cultures and ecosystems of the Cape Horn Biosphere Reserve using the Omora Ethnobotanical Park as a field site that demonstrates the integration of ecological science and field environmental ethics in a novel approach to bioculture diversity.

Prerequisite(s): Upper level academic standing and consent of department.

Same as BIOL 4054.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4100 - Epistemology

3 hours Examines the nature of knowledge and justification. Issues include the relationship between knowledge and opinion, skepticism and the possibility of knowledge; the nature of truth and meaning; the roles of perception, social construction, and gender and ethnicity in knowing and believing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4125 - Philosophy of Law

3 hours Examines philosophical theories about the nature and purpose of law. Topics include the relationship between law and morality, legal legitimacy, and the possibility of unjust laws. Draws on historical and contemporary perspectives, with examples from current American legal cases.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4150 - Feminism

3 hours An introduction to Anglo-American, French and international feminisms. Topics include gender essentialism and gender differences; the relation between theory and practice; the relation between the personal and the political; the gendering of the history of philosophy; women and conflict; and ecofeminist issues in food security and climate change in developing countries.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PHIL 4200 - Science, Technology and Society

3 hours Examination of the interconnections among science, technology and society and the ways they mutually shape one another to the benefit and detriment of social life and the environment. Topics include the social values of science and technology; technology and social progress; expertise and democracy; colonialism; and environmental justice.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4400 - Metaphysics

3 hours Examination of the ultimate nature of reality and the terms used to understand it, such as existence, substance, causality, space, time and identity. Themes include idealism, realism, naturalism and process metaphysics. Figures might include Plato, Aristotle, Aquinas, Locke, Leibniz, Kant, Hegel, Nietzsche, Heidegger, Whitehead and Derrida.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4450 - Philosophy of Ecology

3 hours Traces the development of ecology from its roots in 19th-century natural history through general ecology, restoration ecology, deep ecology and social ecology. Examines the central philosophical concepts of biological and cultural diversity; the relations between societies and their environments; environmental and social problems determined by losses in biocultural diversity; agriculture, land ethics and conservation; non-Western conceptions of nature and society.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4500 - Existentialism

3 hours Examination of humanity's place in the natural and social worlds. Emphasis on problems of freedom, authenticity, alienation, anxiety, affirmation, morality, religion and atheism. Figures typically include Kierkegaard, Nietzsche, Heidegger and Sartre.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4600 - Phenomenology

3 hours Study of human experience and of the ways things present themselves to us in and through such experience. Examines phenomenology as a method of inquiry, a philosophical movement, and a study of the structures and conditions of experience. Figures typically include Husserl, Heidegger, Merleau-Ponty and Ricoeur.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4650 - Philosophy of Water

3 hours Examination of water issues at the interface of science, policy, philosophy, art and culture. Philosophical approaches include ethics, aesthetics and ontology of water; epistemological analysis of water conflicts; local and global governance theories.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4700 - Environmental Philosophy

3 hours Examination of appropriate human interventions in the natural world. Topics include the history of ideas behind environmental thought, the legal and moral standing of nature, animal rights and welfare, deep ecology, social ecology, environmental justice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4740 - Environmental Justice

3 hours An examination of the philosophical foundations of the environmental movements in the US and around the world. Analyzes the interplay of social justice and environmental harms, considers multiple conceptions of justice, the equitable distribution of environmental, risks and benefits, environmental law and policy, participation in environmental decision making, and local knowledge and cultural differences.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4800 - Postmodernism

3 hours Examination of contemporary philosophers and writers who question the premise of Enlightenment thought that Reason will liberate us from superstition, tradition and hardships imposed by nature. Topics may include a critique of foundationalism, representational epistemology, historical progress and Eurocentrism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4950 - Internship

3 hours Practical experience through employment or a volunteer position related to the study of philosophy and/or religion. This might include, but is not limited to, working with a law office, a church, an educational institution, or a branch of government. Directed by a faculty member of the department and a coordinating supervisor from the internship venue. May be repeated once for credit.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4960 - Topics in Philosophy

3 hours Topics and issues on figures and themes in the history of philosophy.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PHIL 4970 - Philosophy Capstone

3 hours Seminar on philosophical writing and argument focusing on the comparative study of important figures in the history of philosophy.

Prerequisite(s): Senior standing and philosophy or religious studies major status; or consent of department.

Required course for philosophy majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Physical Education

PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

3 hours Comprehensive presentation of the scientific fundamentals of developing a healthy lifestyle, including the epidemiology of disease and mortality in the United States, effects of physical activity and fitness on health, proper nutrition, addictive behaviors, prevention and treatment of obesity, mental health related to healthy lifestyles, and musculoskeletal health and disease. Instructional modalities include lecture, physical activity experiences, computer-assisted instruction using instructor-developed software and Internet resources and assessment of health risks and fitness.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1010 - Beginning Swimming

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1030 - Intermediate Swimming

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1040 - Advanced Swimming

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1080 - Diving

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1120 - Swim Conditioning

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1150 - Wrestling

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1160 - Self-Defense Activities

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1200 - Conditioning Exercises

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1210 - Weight Training

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1211 - Intermediate Weight Lifting

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1220 - Jogging

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1221 - Walking for Health and Fitness

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1230 - Aerobic Dance

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1240 - Cycling

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1250 - Pilates

1 hour Designed to improve both physical and mental conditioning by focusing on improving flexibility and strength for the overall body. Students are provided with a basic working knowledge of Pilates positions, the benefits associated with Pilates and knowledge of basic skills needed to pursue independent training as part of a lifetime fitness program.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1260 - Yoga

1 hour Introduces the ancient discipline of personal development that balances body, mind and spirit. Students learn a series of physical postures as well as practical methods for relaxation, proper breathing, meditation and concentration that promote health, alleviate stress, improve skeletal alignment and increase muscular strength and flexibility.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1280 - Folk Dance

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1360 - Social Dance

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1420 - Country and Western Dance

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1440 - Intermediate Badminton

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1450 - Archery

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1470 - Beginning Badminton

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1480 - Beginning Bowling

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1490 - Intermediate Bowling

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1500 - Beginning Golf

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1510 - Intermediate Golf

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1540 - Handball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1570 - Beginning Racquetball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1580 - Outdoor Pursuits

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1590 - Beginning Tennis

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1600 - Intermediate Tennis

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1610 - Advanced Tennis

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1640 - Beginning Fencing

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1650 - Intermediate Fencing

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1660 - Intermediate Racquetball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1700 - Women's Beginning Basketball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1710 - Intermediate Basketball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1711 - Men's Intermediate Basketball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1721 - Non-Traditional Sports/Games – Indoor

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1722 - Non-Traditional Sports/Games – Outdoor

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1740 - Soccer

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1741 - Men's Soccer

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1750 - Softball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1760 - Ultimate Frisbee

1 hour (1;3) Teaches the fundamental skills and rules of ultimate frisbee as well as how to play the game and how to implement basic strategies used in the game. Emphasis placed on skills, rules and participation in playing the game of ultimate frisbee.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1770 - Touch Football

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1780 - Women's Beginning Volleyball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1781 - Men's Beginning Volleyball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1790 - Intermediate Volleyball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1791 - Men's Intermediate Volleyball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1860 - Activity for the Atypical

1 hour For students with acute or chronic physical and/or sensory impairments that may preclude them from participation in other physical education activity courses.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 1870 - Team Handball

1 hour Elective activity course.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 2900 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

PHED 2910 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Physics

PHYS 1052 - The Solar System

(ASTR 1404 or PHYS 1404 or ASTR 1104/ASTR 1304 or PHYS 1104/PHYS 1304)

3 hours (3;2) History of astronomy and the physical properties of the earth, moon, planets and minor bodies. Includes weekly outdoor and indoor laboratory exercises.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 1062 - Stars and the Universe

(ASTR 1403 or PHYS 1403 or ASTR 1103/ASTR 1303 or PHYS 1103/PHYS 1403)

3 hours (3;2) Properties of stars and stellar systems and a study of the origin, evolution and future of the universe. Includes weekly outdoor and indoor laboratory exercises.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 1270 - Science and Technology of Musical Sound

3 hours (3;2) Sound production; nature of vibrations in percussion, string, and wind instruments. Sound propagation; sound speed; echoes. Sound intensity, physical and perceived. Sound pitch, physical and perceived; intervals. Complex sounds; harmonic series. Room acoustics; reverberation time; ideal listening rooms. Wave phenomena; interference and diffraction. Digital sound recording; musical scales; the human voice. Includes weekly laboratory exercises.

Prerequisite(s): MATH 1100 or above.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1315 - Introduction to the World of Physics

(PHYS 1410 or PHYS 1110/PHYS 1310)

3 hours (3;3) Basic principles and concepts of physics for the liberal arts major necessary to the understanding of our increasingly technological environment and the science on which it is based; current ideas concerning the micro world and the universe at large. Topics include mechanics; properties of matter; heat; sound; electricity and magnetism; light; and atomic, nuclear and fundamental particle physics. Includes weekly laboratory exercises.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)

PHYS 1410 - General Physics I

(PHYS 1301)

3 hours (3;0;1) Principles and applications of mechanics, sound and heat.

Corequisite(s): PHYS 1430.

Recommended: Proficiency in algebra and trigonometry.

Non-calculus based physics sequence suitable for life sciences majors and preprofessional students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1420 - General Physics II

(PHYS 1302)

3 hours (3;0;1) Principles and applications of electricity, magnetism, light and atomic physics.

Prerequisite(s): PHYS 1410 or consent of department.

Corequisite(s): PHYS 1440.

Non-calculus based physics sequence suitable for life sciences majors and preprofessional students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 1430 - General Physics Laboratory I

(PHYS 1101)

1 hour (0;3) Laboratory to accompany PHYS 1410.

Prerequisite(s): PHYS 1410 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1440 - General Physics Laboratory II

(PHYS 1102)

1 hour (0;3) Laboratory to accompany PHYS 1420.

Prerequisite(s): PHYS 1420 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1510 - General Physics I with Calculus

3 hours (3;0;1) Principles of mechanics including conservation laws and applications such as nuclear processes and heat.

Prerequisite(s): MATH 1710 or MATH 1810 (may be taken concurrently).

Corequisite(s): PHYS 1530.

Calculus-based physics sequence suitable for physics majors, biochemistry, math majors, chemistry majors, future science teachers, and for pre-medicine and other health-related preprofessional students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

PHYS 1520 - General Physics II with Calculus

3 hours (3;0;1)

Principles and applications of electricity, magnetism, and light.

Prerequisite(s): PHYS 1510 completed with a grade of C or better.

MATH 1710 completed with a grade of C or better, or MATH 1820 (may be taken concurrently).

Corequisite(s): PHYS 1540.

Calculus-based physics sequence suitable for physics majors, biochemistry, chemistry majors, math majors, future science teachers, and for pre-medicine and other health-related preprofessional students.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1530 - General Physics with Calculus Laboratory I

1 hour (0;3) Laboratory to accompany PHYS 1510.

Corequisite(s): Concurrent enrollment in PHYS 1510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

PHYS 1540 - General Physics with Calculus Laboratory II

1 hour (0;3) Laboratory to accompany PHYS 1520.

Corequisite(s): Concurrent enrollment in PHYS 1520.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 1710 - Mechanics

(PHYS 2325)

3 hours (3;0;1) Laws of motion; inertia, acceleration, force, energy, momentum and angular momentum. Rotational and oscillatory motion. Gravitation.

Prerequisite(s): MATH 1710 with a grade of C or better or MATH 1820 (may be taken concurrently).

Corequisite(s): PHYS 1730.

Calculus-based, suitable for engineering, and computer science.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 1730 - Laboratory in Mechanics

(PHYS 2125)

1 hour (0;3) Laboratory to accompany PHYS 1710.

Prerequisite(s): PHYS 1710 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 2220 - Electricity and Magnetism

(PHYS 2326)

3 hours (3;0;1)

Electric fields, DC and AC circuits, magnetic fields and magnetic induction. Electric and magnetic properties of matter, and properties of light.

Prerequisite(s): PHYS 1420 or PHYS 1710 each with a grade of C or better; or PHYS 1510.

MATH 1720 or MATH 1830 (either may be taken concurrently).

Corequisite(s): PHYS 2240.

Calculus-based, suitable for engineering, computer science majors.

Core Category: Life and Physical Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 2240 - Laboratory in Electricity and Magnetism

(PHYS 2126)

1 hour (0;3) Laboratory to accompany PHYS 2220.

Prerequisite(s): PHYS 2220 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 2900 - Special Problems

1–3 hours Individualized instruction in theoretical or experimental problems.

For elective credit only. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 2910 - Special Problems

1–3 hours Individualized instruction in theoretical or experimental problems.

For elective credit only. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 3010 - Modern Physics

3 hours (3;0;1)

Relativity, quantum physics, atomic structure, properties of matter and nuclear physics.

Prerequisite(s): PHYS 2220 or PHYS 1520.

MATH 1720 or MATH 1830 (either may be taken concurrently).

Corequisite(s): It is recommended that the course be taken concurrently with PHYS 3030.

Calculus-based, suitable for physics, engineering, mathematics, computer science and chemistry majors.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered:

PHYS 3030 - Laboratory in Modern Physics

1 hour (0;3) Laboratory to accompany PHYS 3010.

Prerequisite(s): PHYS 3010 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

PHYS 3210 - Mechanics

3 hours (3;0;1) Vector treatment of the motion of a particle in one, two and three dimensions; motion of a system of particles; conservation laws; the statics of fluids and solids; the motion of rigid bodies.

Prerequisite(s): PHYS 1520 or PHYS 2220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 3220 - Mechanics

3 hours (3;0;1) Gravitation; moving coordinate systems; mechanics of continuous media; generalized coordinates and the Lagrangian and Hamiltonian formulations of mechanics; applications of tensors to rotation of rigid bodies; theory of small vibrations.

Prerequisite(s): PHYS 3210.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 3310 - Mathematical Methods in the Physical Sciences

3 hours (3;0;1) Application of advanced mathematical techniques to the solution of problems in physics. Vector spaces, complex analysis, matrices, linear transformations, vector calculus, Fourier series and integrals, the Laplace transformation, and special functions.

Prerequisite(s): PHYS 2220 or PHYS 1520. MATH 2700 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 3420 - Electronics

4 hours (1–3;4–6)

Electronics. Analog and digital electronics, applications and diagnostic techniques. Direct and alternating current circuits and measurements; selections from fundamentals of semiconductor devices; uses of diodes, transistors, etc., as switches and circuit elements; applications of Boolean algebra; memory and storage devices; counters and shift registers; computer structures; feedback and operational amplifiers; digital and analog instrumentation and interfacing with computers. Labs on basic circuits, instrumentation and measurements that primarily focus on physical implementation and may include circuit simulation.

Prerequisite(s): PHYS 1420/PHYS 1440, PHYS 1520/PHYS 1540, or PHYS 2220/PHYS 2240.

MATH 1710 with a C or higher or MATH 1820 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 3510 - Physics, Computation and Software Applications

3 hours A basic survey of selected topics at the intersection of computer science, engineering and physics. Student will learn computer programming for applications in physics as well as the physics underlying computation and its physical implementation. Topics include: automated control in experimental physics, symbolic computation/analysis, simulation of physical phenomena; physical basis of contemporary computers and computation; physical constraints with respect to size, speed, energy and architecture; classical and quantum computation and implementations.

Prerequisite(s): PHYS 1520 or PHYS 2220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

PHYS 3910 - Intermediate Computational Modeling of Physical Systems

3 hours Intermediate-level survey of computer-based modeling of physical systems. Includes the theory and hands-on implementation of computational approaches to solve problems related to classical mechanics, nonlinear dynamics, oscillations, electromagnetic fields, simple random problems, and thermal systems. Describes intermediate-level numerical methods related to function analysis (roots of linear and non-linear equations, derivatives, integrals), linear algebra (linear systems, eigenvalues and eigenvectors), optimization and ordinary differential equations. Covers data analysis, regression, function fitting and an introduction to machine learning approaches on large datasets.

Prerequisite(s): PHYS 3510, PHYS 1520 or PHYS 2220.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 3950 - Observational Astronomy

3 hours

This class provides an overview of modern methods and techniques in observational astronomy. The following topics will be covered: optical astronomy; telescopes; modern detectors; photometry; spectroscopy; interferometry; data analysis; time-series analysis; multi-wavelength astronomy; multi-messenger astrophysics. This class provides an overview of modern methods and techniques in observational astronomy. The following topics will be covered: Optical astronomy; telescopes; modern detectors; photometry; spectroscopy; interferometry; data analysis; time-series analysis; multi-wavelength astronomy; multi-messenger astrophysics.

Prerequisite(s): PHYS 1520 or PHYS 2220 with a grade of C or higher.

MATH 1720 or MATH 1830 with a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 4110 - Statistical and Thermal Physics

3 hours (3;0;1) Basic probability concepts; statistical description of systems of particles; statistical thermodynamics and thermodynamic laws; macroscopic and microscopic descriptions of systems; phase transformation.

Prerequisite(s): PHYS 3010, PHYS 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 4150 - Experimental Physics I

3 hours (1;6) Laboratory experience via use of research-quality instruments. Modern experiments in solid state, nuclear, atomic and molecular physics. Topics, which may vary, cover recent developments in modern physics suitable for advanced undergraduates and graduate students. Topics, which may vary, include nonlinear dynamics and chaos in circuits and lasers; SQUIDS and high temperature superconductivity; holography; X-ray diffraction; electron scanning microscopy; Rutherford scattering, low energy nuclear reactions; ion-induced inner shell ionization at MeV energies; nuclear magnetic resonance to obtain local electronic structure; magnetic transport and magneto-optics; and modern techniques in surface analysis (ion sputtering). In addition, ion beam based experimental techniques for materials growth and modification may be done.

Prerequisite(s): PHYS 3010, PHYS 3030.

May be repeated for credit up to 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

PHYS 4210 - Electricity and Magnetism

3 hours (3;0;1) Vector treatment of static electric and magnetic fields in free space, multipole field distributions, boundary value problems, fields in material media, and electromagnetic waves.

Prerequisite(s): PHYS 1520 or PHYS 2220, MATH 2730.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 4220 - Electromagnetic Waves

3 hours (3;0;1) Maxwell's equations; plane and spherical waves; reflection, refraction, guided waves, radiation and scattering.

Prerequisite(s): PHYS 4210.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

PHYS 4250 - Advanced Photonics for Microscopy and Spectroscopy

3 hours

This comprehensive course on Photonics Application of ultrafast optics for microscopy and spectroscopy introduces students to both the theory and practical use of modern microscopes. The course features lectures on the basic physical principles behind the most common modern microscopy techniques. We cover introduction to linear and nonlinear optics, principles of image formation, light microscopy techniques, principles of fluorescence, digital imaging, confocal microscopy, TIRF, STED, FRET-FLIM, and FRAP techniques, structured illumination, two-photon fluorescence, second harmonic generation, vibrational imaging, scanning probe microscopy (SPM) techniques, atomic force microscopy (AFM), and modern ultrafast electron microscopy (SEM, TEM and ARPES), and ultrasonic microscopy. The lectures are reinforced with the laboratory sessions featuring extensive demonstrations and hands-on exercises on a wide variety of microscopes. This course is designed to provide students and researchers from various fields with a comprehensive and practical introduction to modern microscopy techniques and a background in modern optical research tools.

Prerequisite(s): PHYS 1520 or PHYS 2220 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

PHYS 4310 - Quantum Mechanics

3 hours (3;0;1) Origins of the modern theory of atomic structure; Schrödinger's formulation of non-relativistic, single-particle quantum mechanics and application to simple systems; the one-electron atom.

Prerequisite(s): PHYS 3010/PHYS 3030 and MATH 3410.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 4350 - Advanced Modern Physics I – Atomic and Molecular Physics

3 hours Introduction to various quantum mechanical models of atomic and molecular structure and spectra. Hydrogen atom and simple spectra; external fields, line splitting; line broadening; addition of angular momentum and spin; effective fields, variational method; Hartree and Hartree-Fock theory; structure and spectra of multielectron atoms; Rydberg atoms; molecular binding; rotational, vibrational and electronic states and spectra of diatomic molecules.

Prerequisite(s): PHYS 4310.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

PHYS 4360 - Advanced Modern Physics II – Nuclear and Particle Physics

3 hours Comprehensive study of nuclear structure and dynamics; survey of particle physics; properties of the nuclear force; interpretation of experimental data via specific many-body models; interaction of radiation with matter; classification of particles and nuclei; scattering theory; conservation laws and symmetry; and contemporary results.

Prerequisite(s): PHYS 4350.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

PHYS 4420 - Physical Optics

3 hours (3;0;1) Huygens' principle and application to geometrical optics; interference phenomena; Fraunhofer and Fresnel diffraction; polarization; electromagnetic theory of light and interaction with matter. Part of the instruction will be in a laboratory setting.

Prerequisite(s): PHYS 1520 and PHYS 1540 or PHYS 2220 and PHYS 2240.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only (Alternating Years)

PHYS 4500 - Introduction to Solid-State Physics

3 hours Introduction to the major areas of solid-state physics, including crystal structure and symmetry, lattice vibrations and phonons, thermal properties, energy bands, semiconductors, superconductivity, and magnetic properties.

Prerequisite(s): PHYS 3010/PHYS 3030.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 4520 - Physics of Nanoscale Materials

3 hours (3;0;1) Introduction to the physics of nanoscale materials including a study of their properties, synthesis, characterization and applications. Applications of nanoscale materials also are discussed.

Prerequisite(s): PHYS 3010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 4600 - Computer Based Physics

3 hours Symbolic and numerical evaluations of single-variable and multi-variable integrals with a single line of programming. Symbolic evaluation of derivatives. Symbolic manipulation of lists including vectors and matrices. Data analysis. Multidimensional plots. Symbolic derivations. Symbolic and numerical solutions to single and multiple, linear and nonlinear, differential and partial differential equations. Probability densities and Monte Carlo methods. Random walk and classical trajectory simulations.

Prerequisite(s): PHYS 3510.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 4610 - Topics in Astronomy

3 hours (3;0;1) Selected topics in planetary and stellar astronomy: techniques of astronomical observation and measurement; evolution, composition and properties of our solar system and the universe; history of astronomy. Designed for students seeking secondary physical science/science teacher certification. The recitation hour for PHYS 4610 serves to cover teaching methods in astronomy, including the demonstration of measurement equipment (e.g., spectrometers, digital imaging, telescopes, etc.).

Prerequisite(s): Consent of department.

May be repeated up to twice, for a total of 9 hours of credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

PHYS 4630 - Topics in Astronomy Laboratory

1 hour (0;3) Laboratory sequence for PHYS 4610. Designed for students seeking secondary physical science/science teacher certification. Emphasizes data acquisition (e.g., via astronomical observations), data analysis (e.g., of stellar spectra) for the selected topics covered in PHYS 4610, and includes an overview of how to set up the equipment for the laboratory exercises.

Prerequisite(s): PHYS 4610 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only (Alternating Years)

PHYS 4650 - Introduction to Modern Astrophysics

3 hours (3;0;1) Celestial mechanics; interaction between light and matter; the energy source of the sun; stellar evolution and black holes; galaxies and cosmology.

Prerequisite(s): PHYS 3010.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

PHYS 4750 - Galaxies and Cosmology

3 hours

Overview of galaxies and cosmology. Covers the current standard model of the universe, and the formation, evolution and the properties of galaxies. Students will gain a deeper understanding of the following topics: modern cosmology and its history; basics of general relativity; cosmological models; the distance ladder; the age of the universe and the universal expansion; Cosmic Microwave Background (CMB); early universe and the big-bang nucleosynthesis; the contents of the universe— baryons, dark matter, and dark energy; structure formation of the universe; Galaxies: morphology, structure, kinematics, stellar populations, spectra; Galaxies: space distribution, luminosity function, mass function; Galaxies: formation and evolution; galaxy clusters; supermassive black holes and their roles in galaxy evolution.

Prerequisite(s): PHYS 4650.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall Only

PHYS 4900 - Special Problems

1–3 hours Prerequisite(s): Must have the consent of the faculty member prior to enrollment.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 4910 - Special Problems

1–3 hours Prerequisite(s): Must have the consent of the faculty member prior to enrollment.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 4950 - Senior Thesis

3 hours Individual research on a problem chosen in consultation with a faculty member. Research may be conducted on campus, during an internship off-campus, or as an exchange student in a study abroad program.

Prerequisite(s): Consent of supervising faculty member.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

PHYS 4955 - Senior Thesis Capstone

3 hours Individual research project prepared by the student under the supervision of a faculty member. A written thesis and oral presentation are required for successful completion of the thesis.

Prerequisite(s): PHYS 4950 and consent of supervising faculty member.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall, Spring and Summer

Political Science

PSCI 2305 - US Political Behavior and Policy

(GOVT 2305)

3 hours Explores the connection between the will of the people and the policies implemented by government by focusing on individual political values and attitudes, the mechanisms that connect individual beliefs to government action (parties, interest groups, the media, and elections), the US Constitution, and the outcomes of government policy. Satisfies one of the political science requirements of the University Core Curriculum.

Core Category: Government/Political Science
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 2306 - US and Texas Constitutions and Institutions

(GOVT 2306)

3 hours An introduction to the institutions of government, with particular emphasis on the U.S. and Texas Constitutions. Focus on the structure and powers of the three branches of government (both national and Texas); the division of power between those branches (separation of powers); the division of power between the national and state governments (federalism); and issues related to civil rights and civil liberties. Satisfies the legislative requirement for a course emphasizing the Texas constitution.

PSCI 2306 must be taken to satisfy the requirement of a course emphasizing U.S. and Texas constitutions.

Core Category: Government/Political Science
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 2315 - Honors US Political Behavior and Policy

3 hours Explores the connection between the will of the people and the policies implemented by government by focusing on individual political values and attitudes, the mechanisms that connect individual beliefs to government action (parties, interest groups, the media, and elections), and the outcomes of government policy. Satisfies one of the political science requirements of the University Core Curriculum.

Prerequisite(s): PSCI 2306 or PSCI 2316. Acceptance to Honors College.

Core Category: Government/Political Science
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 2316 - Honors U.S. and Texas Constitutions and Institutions

3 hours An introduction to the institutions of government, with particular emphasis on the U.S. and Texas Constitutions. Focus on the structure and powers of the three branches of government (both national and Texas); the division of power between those branches (separation of powers); the division of power between the national and state governments (federalism); and issues related to civil rights and civil liberties. Satisfies the legislative requirement for a course emphasizing the Texas constitution.

Prerequisite(s): Acceptance to Honors College.

Satisfies the requirement of a course emphasizing U.S. and Texas constitutions.

Core Category: Government/Political Science
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3010 - American State and Local Government

3 hours Political processes among state and local governments, and similarities and variations in the politics and policies of states.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3100 - Topics in American Government

3 hours Major areas of research and controversy in American politics. Representative topics include political campaigning, minority group politics, and science fiction and politics. May be repeated for credit as topics vary.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3101 - Latino Politics

3 hours Overview of the political status and experiences of Latinos in the United States. Deals with group identity and solidarity; historical experiences of different Latino national origin groups; representation in the electoral and policymaking process in local, state and federal governments; and theories of minority group politics.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3102 - U.S. Immigration Policy

3 hours Examines immigration issues from an interdisciplinary perspective incorporating readings from economics, sociology, demography, and political science as well as the depiction of immigration in popular culture. Topics will include the historical evolution of American immigration policy, push and pull theories of immigration, the economic costs and benefits of immigration, and the future direction of US immigration policy.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3103 - U.S. Immigration Politics

3 hours Examines how the United States responds to and is transformed by immigration policy. Includes consideration of citizenship politics; governmental institutions, political actors, socio-political processes; migration studies: ethical debates related to immigration control; determinants of immigration policy, the political and cultural inclusion and/or exclusion on immigrants; and immigrant participation in the political process.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3104 - Race and Ethnic Politics

3 hours Overview of the political experiences of major racial and ethnic minority groups in the United States and their paths to political equality. Topics include (pan)ethnic identity, citizenship, suffrage, inequality in political participation and representation, interracial conflict, coalition building, and current political and policy debates affecting racial/ethnic minorities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3105 - Political Economy of Race, Gender and Immigration

3 hours Examines theoretical approaches to understanding and integrating gender, race, and immigration in economics and their political impact. Additionally, examines capitalist development in the context of race, gender, and immigration both historically and in the modern political era on the national, state, and local level.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

PSCI 3106 - African-American Politics

3 hours Explores the political development of African-Americans in the United States; modes of thought and social movements that emerged in the black community in reaction to systematic racial discrimination; African Americans' transition from protest politics to mainstream electoral involvement; and the influence of African American presence in American politics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3110 - The Legislative Process

3 hours Legislative behavior, representation, selection of legislators, organization and procedures; relationships to other branches of government.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3120 - Women and Politics

3 hours Explores aspects of women's political, legal and economic lives in which gender intersects with government; provides overview of issues and important concepts, events and movements concerning them.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3130 - Interest Groups

3 hours The theory, development, types, operations and effectiveness of interest groups in American politics.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3160 - Mass Media in American Politics

3 hours Mass media's impact upon the political process, institutions and the individual.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3165 - Topics in Politics and Pop Culture

3 hours Explores the influence of popular culture on politics as well as the influence of political realities on popular forms of expression and communication. Topics may include science fiction and politics, the politics of rock and roll, politics in popular film, and more.

May be repeated for credit as topics vary for up to 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3170 - Presidential Elections

3 hours Examines theories of voting in presidential elections, candidate strategy, voter mobilization and participation, voter information, the media's role in the election process, and the nomination process.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3200 - The American Legal System

3 hours Institutions and processes; courts and judicial behavior.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3210 - The U.S. Supreme Court

3 hours Explores varying aspects of the U.S. Supreme Court, including how the Supreme Court selects and decides cases, how justices are appointed to the Supreme Court, how the Supreme Court interacts with other branches of government and interest groups, and how decisions are implemented.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3300 - Political Science Research Methods

3 hours Emphasizes the conceptual and analytical tools necessary for conducting and understanding research in political science. Includes an introduction to statistical analysis and computer use.

Prerequisite(s): PSCI 2306/PSCI 2316 or PSCI 2305/PSCI 2315, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3310 - Political Theory: Quest for Justice

3 hours Examines enduring questions about community, the individual, happiness, and justice through the analysis of such works as Plato's "Republic," Machiavelli's "Prince," and Hannah Arendt's "The Human Condition." Other themes include the ideal political order, the character of human excellence, the relationship between politics and society, the political responsibilities of philosophy, and the relationship between education and justice.

Prerequisite(s): 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3320 - Political Theory: The State and its Critics

3 hours Examines the early modern authors who devised the concept of the "state," their later-modern opponents, and a rich variety of pre-modern, non-modern, and post-modern alternatives through such works as Hobbes' Leviathan, Locke's Second Treatise, and Aristotle's Politics. Other themes include concepts of equality, liberty and law, the rise of ideology and nationalism, and the relationships among modern natural science, religion, philosophy, and politics.

Prerequisite(s): 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3500 - Human Security

3 hours Origins and extent of violence in human relations, foreign and domestic.

Prerequisite(s): PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3600 - Governments and Politics around the World

3 hours Major concepts and approaches to comparative government and politics.

Recommended: 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3611 - Politics of Central America and the Caribbean

3 hours Analyzes the major political issues in Central American and Caribbean nations including the historical origins of political, economic, and security conditions and variations in the institutional forms of government across the region.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3631 - Peace and Conflict in Africa

3 hours Overview of theories of civil conflict and conflict resolution with a particular focus on African cases from the end of European colonization to present.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3641 - Politics of Japan

3 hours Overview of politics in Japan, with an emphasis on electoral competition and political parties in the post-war era.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3700 - Area Politics

3 hours Political institutions, processes, problems and policies in distinctive geographic or cultural areas of the world. Frequently offered areas include Africa, Asia, Latin America, the Middle East, the former Soviet Union and Eastern Europe, Western Europe, the Anglo-American democracies, and the Commonwealth of Nations.

Recommended: 3 hours of political science.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3701 - Politics of Mexico

3 hours

Survey of contemporary Mexican politics. Emphasis on historical context and recent economic and social changes and their impact on Mexico's political system. Topics include relations with the United States, North American issues, economic and political reforms, and the recent emergence of opposition politics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3702 - Latin American Politics

3 hours Examines the different types of political rule in Latin America as they relate to awareness and knowledge of distinct cultures or subcultures, including but not limited to ethnicity, gender, class, political systems, religions, languages, and human geography. Different types of political rule have marked the Latin American landscape in the twentieth century. It compares explanations for the emergence of authoritarian rule and for the return of democratization in this region of the world in the current era.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3703 - Security in Latin America

3 hours Survey course that discusses various topics related to public security in Latin America. Examines the contemporary security landscape of the region focusing on paramilitaries, gender violence, drug trafficking, gangs and urban violence, and policing. Also examines the premises of hemispheric security primarily from the perspective of the Latin American countries particularly addressing Latin American and Caribbean states' capabilities to respond to current insecurities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3704 - U.S.-Latin American Relations

3 hours International relations of Latin America from independence to the end of the Cold War and the current period, with an emphasis on its relations with the United States. Topics will cover colonial rule in Latin America, experience from the early 1800s to World War II; political and economic changes in the 1950s - 1980s; the impact of the Cold War on U.S. foreign policy making; and the end of the Cold War, immigration, NAFTA, and the spread of illicit drugs across borders.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3810 - International Relations

3 hours Analytical survey of current world politics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3910 - Practicum

1–3 hours Field practicum offered as special problems or organized course.

Prerequisite(s): Consent of department and chair; PSCI 3110 for national or state legislative internships.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3933 - Legal Internship for Non-Majors

1–3 hours Provides guidance, support, and assessment for non-political science majors holding an internship at a law firm, government agency, or law-related non-profit. Bridges coursework with the internship experience. Emphasizes career planning, reflection, and professional development.

Prerequisite(s): Completion of at least 60 credit hours (at least 12 of which must be at UNT); overall GPA of at least 3.0; non-major or minor in political science; permission of instructor.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4020 - Urban Politics

3 hours The city in social order; political machinery of central city and suburbs; types of conflicts, policies, leadership and groups; metropolitan government.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4100 - Political Parties

3 hours Development, nature, problems, organization, operation and functions.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4120 - Public Opinion and Participation

3 hours Shaping factors, communication techniques, public opinion, governmental action and democracy.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4140 - The Presidency

3 hours Development of power, influence and limitations of the chief executive; selection, office, changing role and problems of control.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4150 - Religion and Politics in the United States

3 hours Examines the role of religious institutions, creeds, and communities in American political life.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4200 - Constitutional Law: Powers of Government

3 hours Decisions of the United States Supreme Court; scope of legislative, executive and judicial power; presidential power in war and foreign affairs; clash of national and state power; economic liberties and property rights.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4210 - Constitutional Law: Rights and Liberties

3 hours Decisions of the United States Supreme Court; freedom of religion, speech and press; right to privacy; racial and gender discrimination.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4230 - The Constitution and the Rights of Criminal Defendants

3 hours An in-depth examination of the constitutional rights and liberties enjoyed by defendants in the criminal justice process. Explores the U.S. Supreme Court's interpretation of constitutional guarantees as that interpretation has developed through the evolution of case law in a political and historical context.

Recommended: PSCI 2306 and PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4250 - Legal Reasoning and Analysis

3 hours Application of legal reasoning, argumentation and procedures to a simulated civil conflict.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4300 - Topics in Political Research Methodology

3 hours Examination of specialized topics in research methodology of political science. Representative topics include intermediate or advanced quantitative data analysis, survey research methods and fieldwork methods.

Recommended: PSCI 2306, PSCI 2305, PSCI 3300, or consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4320 - American Political Theory

3 hours American political thought since Colonial beginnings.

Recommended: 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4330 - Topics in Political Theory

3 hours This course addresses either the work of selected theorists, such as Plato, Thucydides, Machiavelli, Locke or Marx, or themes, such as morality and politics, liberalism and authoritarianism.

Recommended: 3 hours of political science.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4331 - Feminist Political Thought

3 hours Investigates fundamental political concepts of equality, liberty, language, power, class, gender and race from the perspective of the history of political thought as they emerge among feminist writers.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4332 - Critique, Revolution and Reaction

3 hours Readings in the philosophy of freedom (Kant, Hegel) and its critics (Marx, Nietzsche, Heidegger, Critical Theory) explore the promise, discontent, and detritus stemming from the Enlightenment.

Recommended: PSCI 2306 and PSCI 3310 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4333 - Politics and Socratic Self-Knowledge

3 hours Examines the thought of Socrates and the Socratics (such as Plato, Aristotle, Xenophon, Augustine, Averroes, Maimonides) to discover the liberating power of the Socratic way of thinking.

Recommended: PSCI 2306 and PSCI 3310 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4360 - International Ethics

3 hours A reading of authors from ancient to the modern world who have examined ethical issues as they relate to international politics. Consideration of ethical positions such as amoral realism, legal positivism, human rights, critiques of human rights, just war theories and Islamic approaches to international ethics. Topics may include the nature of law and morality as well as policy issues such as the use of force against terrorists.

Recommended: 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4410 - Education Politics and Policy

3 hours Explores major policy debates shaping the American school system. Focuses on how the American education system functions, how it has changed over time, and how actors have influenced the system.

Prerequisite(s): PSCI 2305, PSCI 2306.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4490 - Topics in Public Policy

3 hours Analysis of the making, implementation and evaluation of major policy issues in the United States. Representative topics include aging, defense, civil rights, economic growth, education, environment, health care and poverty.

Recommended: PSCI 2306, PSCI 2305, PSCI 3300 or consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4520 - International Human Rights

3 hours Consideration of the concept and role of human rights in international affairs.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4640 - Revolution and Political Violence

3 hours Causes and consequences of revolution and other forms of political violence in nations.

Recommended: 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4661 - Politics of Autocracy

3 hours Provides a general overview of types of authoritarian and totalitarian regimes and the institutions and internal dynamics of such regimes. Uses case studies to illustrate the evolution and function of such governments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4662 - Civil-Military Relations

3 hours Focuses on the problems that arise between armed forces and society, with focus on issues such as civilian control, military coups, civilian uprisings, and mission creep.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4663 - Comparative Judicial Politics

3 hours Structures and functions of the judicial institution in various countries of the developing democratic world.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4670 - Third World Politics

3 hours Comparative examination of the process and dynamics of political change and development in Third World nations of Asia, Africa, the Middle East and Latin America.

Recommended: PSCI 3600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4671 - Globalization and Development

3 hours Overview of globalization and development, with an emphasis on domestic economic interests and international factors for explaining political and economic development from Colonization to the present.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4700 - Topics in Comparative Politics

3 hours Major areas of research and controversy in the politics of contemporary nations. Representative topics include political socialization, peasant movements, political recruitment and judicial politics.

Recommended: 3 hours of political science.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4720 - Ethnicity in World Politics

3 hours Consideration of the concepts of ethnicity and nationalism as divisive elements in world affairs.

Recommended: 3 hours of political science.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4800 - The Politics of International Organization

3 hours Formation of policy at the international level on questions of military security, the environment, the international economy, economic development through the United Nations and related agencies, and the place of the multinational corporation in world affairs.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4810 - International Law

3 hours Theoretical and political foundations of the law among nations; formation, change, application and enforcement of law; modern trends.

Recommended: PSCI 3200 or PSCI 3810, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4820 - Contemporary International Problems

3 hours Major contemporary problems and conflicts confronting the international system.

Recommended: PSCI 2306, PSCI 2305, or consent of instructor.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4821 - International Conflict

3 hours Examines the forces that promote conflict and peace within the international system, including change over time. Students survey the scholarly literature on war to learn what leading research can explain about international conflict.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4826 - Women, War and Peace

3 hours Survey and analysis of the role of gender, gender hierarchies and gender (in)equality on the prevalence of conflict and the prospects for durable peace.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4827 - Negotiation and Diplomacy

3 hours Explores how diplomacy and negotiations are conducted in the international system.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4828 - Geography, History, and International Relations

3 hours Examination of the ways that geography and history affect international relations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4829 - International Crisis Forecasting

3 hours Employs social science research tools to predict international political events, such as human rights crises and the rise of authoritarianism.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4830 - American Foreign Policy

3 hours Principles and bases on which American foreign policy rests; machinery and personnel for policy formulation.

Recommended: PSCI 2306, PSCI 2305.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4845 - Foreign Policy Around the World

3 hours Survey and analysis of foreign policy making and foreign policy behavior in different national contexts with examples from countries around the world.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4933 - Political Science Internship

3 hours

For students who have obtained an internship with a government entity, law firm, or nonprofit organization; bridges internship with coursework; focuses on reflection and career planning.

Prerequisite(s): 1. At least 60 completed college credit hours, of which at least 12 are at UNT.

2. At least 12 completed credit hours in political science (of which 6 may be 1000-level courses).

3. An overall GPA of at least 3.0 OR a major GPA of 3.0 coupled with an overall GPA of at least 2.8.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4950 - Writing, Advocacy, and Communication

3 hours Students hone communication skills by creating written and oral projects related to careers in government affairs. Examples of topics include writing grants, white papers, model legislation, and legal briefs.

Prerequisite(s): PSCI 2305 and PSCI 2306; junior standing or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4952 - Political Science Capstone Seminar

3 hours Integration of concepts and skills developed throughout the political science curriculum, including both experiential and classroom-based components.

Prerequisite(s): Senior standing; completion of: PSCI 2306 and PSCI 2305 or their equivalents; PSCI 3300; and at least four advanced courses from three fields of PSCI.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4953 - Capstone Internship

3 hours Practical experience in the political process, learning how various governmental or non-governmental entities on the international, national, state, or local level formulate public policy and how these entities interact with the government, their constituents and each other.

Prerequisite(s): Senior standing; completion of PSCI 2306 and PSCI 2305 or their equivalents; PSCI 3300; at least four advanced courses from three fields of PSCI; completion of departmental application process; and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

PSCI 4954 - Research Capstone

3 hours A guided research seminar designed to have students explore the impact of political institutions and/or behavior on the world community.

Prerequisite(s): Senior standing with an overall and major GPA of 3.0 or better; completion of PSCI 2306 and PSCI 2305 or their equivalents, PSCI 3300, and at least four advanced courses from three fields of PSCI.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Project Management

PRJM 2010 - Integrative Seminar I: Foundations

1 hour Introduces students to the basics of academic and career success. Define and develop academic and professional goals.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 2011 - Integrative Seminar I: Professional Practices

1 hour This course introduces basics of personal and professional practice and prepares students for their first internship.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 3010 - Integrative Seminar II: Best Practices

1 hour Focuses on developing personal strengths, the basics of leadership and team styles and how to consistently perform.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 3011 - Integrative Seminar II: Strategies of Growth

1 hour Establish habits for sustained reflection and personal growth. Explore the behaviors relative to personal and professional achievement success.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 3050 - Project Collaboration

3 hours An introduction to collaboration techniques as applied using a real-world project. Students will study theories and practices in collaborative thinking and idea generation. They will develop and execute effective collaborative project management to address complex systems.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 3051 - Project Collaboration Laboratory

1 hour An introduction to collaboration techniques as applied using a real-world project. Students study theories and practices in collaborative thinking and idea generation. Develop and execute effective collaborative project management to address complex systems. In the laboratory, students focus on solutions to a problem. Teams develop and demonstrate their understanding of the problem by proposing one or more solutions, often designing, constructing and delivering a prototype.

Corequisite(s): PRJM 3050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 3110 - Principles of Project Management

3 hours Students integrate core knowledge and skills with theories of project management in a collaborative setting.

PRJM 3130 - Research and Design Methods for Project Management

3 hours Introduces students to the fundamentals of research design and methods applied to real case scenarios and projects. Topics include the use of qualitative and quantitative research and their connection in the analysis of data to further develop balanced findings, including ethical and multidisciplinary considerations. Learn basic principles of inquiry and the different methods (qualitative and quantitative) that can be used to develop and investigate research questions.

PRJM 4010 - Integrative Seminar III: Campus to Career

1 hour Evaluate chosen career path by assessing the skills and traits needed for success.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 4011 - Integrative Seminar III: Life as a Young Professional

1 hour Apply learned objectives towards a job search and craft a transition to career.

Prerequisite(s): Declared major in College of Applied & Collaborative Studies or department consent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRJM 4015 - Applied Innovation Seminar III

1 hour (0;3) Upper level in a series of seminar courses for the integrative studies cohort degree focused on the intersection between application and theory in the 21st century world. Students meet and interact with professionals who describe how the topics the students are currently studying are applied in their organizations or businesses. Through guest lectures, on-site visits, expert panels and individual interviews, students learn how practicing professionals encourage and implement innovation in the public and private sectors.

May be repeated for credit for a maximum of 2 hours. After taking the seminar in the fall term, it is to be repeated in the spring term with additional speakers and skill development.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Psychology

PSYC 1630 - General Psychology I

(PSYC 2301)

3 hours Nature of psychology with emphases on the study of personality development, decision making, reactions to frustration, mental health, and how the individual interacts with and is influenced by others.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 1650 - Biological Psychology

(PSYC 2330)

3 hours Nature of psychology with emphases on the physiological basis of behavior and psychological processes, including learning, motivation, perception and emotion.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 2317 - Quantitative Methods

(PSYC 2317)

3 hours Techniques appropriate for treatment of psychological data; frequency distributions, percentiles, measures of central tendency and variability, normal curve function, simple correlational analyses, and applications of sampling theory. Laboratory offers practice in quantitative methodology and an introduction to the computer statistical program SPSS.

Prerequisite(s): MATH 1680 or MATH 1681X

Corequisite(s): PSYC 3317.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 2480 - Psychosocial Adjustment

(PSYC 2315)

3 hours Processes involved in adjustment of individuals to their personal and social environments; role of conflict, frustration and healthy and pathological strategies of adjustment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20
Typically Offered: Spring Only

PSYC 2580 - Health Psychology

3 hours Examines psychological, physiological, social and behavioral factors as they influence and are influenced by physical health. Health psychology is concerned with the acquisition and maintenance of health through behavior change strategies, the prevention and/or treatment of illnesses, the role of psychosocial and stress factors in the development of physical illness, and the formulation of health care policy.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20

PSYC 2600 - Interpersonal Behavior

3 hours (2;2) Relevant variables underlying interpersonal relationships, and current research methods and findings. Skills in developing effective interpersonal relationships in such contexts as friendships, dating, marriage, family, business and industry. Includes the use of recording devices, role playing and self-observation procedures.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $20
Typically Offered:

PSYC 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 3000 - Positive Psychology

3 hours Nature of psychology with emphases on the development of strengths and virtues, positive emotion, positive cognition, prosocial behavior, positive interventions, and positive environments.

Prerequisite(s): PSYC 1630 or PSYC 1650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 3100 - Social Psychology

3 hours Survey of psychological research and theory on social behavior with attention to person perception, interpersonal attraction, group processes, attitudes, helping behavior, aggression and applied social psychology.

Prerequisite(s): C or better in either PSYC 1630 or PSYC 1650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

PSYC 3300 - Psychology of Addictive Behaviors

3 hours The etiology, theories, cognitive neuroscience, and psychological and behavioral effects of addictive behaviors, including substance use, gambling, and other behaviors being considered as potential addictions, such as binge eating, hypersexuality, and compulsive electronic media use.

Prerequisite(s): PSYC 1630 and PSYC 1650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall Only

PSYC 3317 - Quantitative Methods Lab

1 hour Laboratory offers practice in quantitative methodology and an introduction to the computer statistical program SPSS.

Prerequisite(s): MATH 1680 or MATH 1681X .

Corequisite(s): PSYC 2317. (Students transferring in an equivalent to PSYC 2317 must complete PSYC 3317 their first semester at UNT.)

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

PSYC 3480 - Adult Development and Aging

3 hours Personality, cognitive, social and sensory-perceptual aspects of development from early adulthood through death. Emphasis on the development of a comprehensive understanding of the adult portion of the life span.

Prerequisite(s): PSYC 1630 or PSYC 1650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 3490 - Psychology of Women and Gender

3 hours Comparison of health, wellness, social norms, personality, and cultural factors associated with gender identities. Emphasis on women.

Prerequisite(s): C or better in PSYC 1630 and Sophomore Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 3520 - Introduction to Industrial Organizational Psychology

3 hours Personnel and organizational psychology; selection and testing procedures, test validation, and theories of organization, leadership and job performance.

Prerequisite(s): C or better in PSYC 1630 and Sophomore Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

PSYC 3530 - Forensic Psychology

3 hours Psychological processes related to the legal system from accused to victim to the courtroom. Dynamics involved in, but not limited to, sexual assault, intimate partner abuse, stalking, homicide, non-violent crimes, incarceration and investigations.

Prerequisite(s): C or better in PSYC 1630 and upper-level standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 3620 - Developmental Psychology

3 hours Basic theories and research in life-span developmental psychology, with an emphasis on the first two decades of life; unique and interactive features of socio-emotional, physical and cognitive development.

Prerequisite(s): C or Better in PSYC 1630.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 3630 - Research in Psychological Measurement

3 hours Fundamental psychometric theories for psychological tests and assessment procedures used in research and clinical work; students create mixed-methods measures and analyze resulting data to evaluate validity and reliability.

Prerequisite(s): C or better in PSYC 2317, PSYC 3317 and PSYC 3650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 3640 - Intimate Partnerships and Caregiving

3 hours Physiological, psychological, and socioeconomic factors involved in intimate partnerships and caregiving; practical education for adjusting to and within a partnership and providing caregiving to family members of all ages.

Prerequisite(s): C or better in PSYC 1630 or PSYC 2600 or PSYC 2480, and Sophomore Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 3650 - Experimental Methods

4 hours (4;3) Basic experimental procedures and designs, laboratory apparatus, and treatment of experimental data. Experiments and experimental reports required of each student.

Prerequisite(s): C or better in each PSYC 1630, PSYC 2317, PSYC 3317, and TECM 2700 or ENGL 1320.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

PSYC 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4020 - Psychology of Death and Dying

3 hours Concepts and attitudes concerning death and dying from a psychological perspective; current research on death and dying; development of insights and understanding to prepare the student to interact effectively with people who are terminally ill and their family members.

Prerequisite(s): C or better in PSYC 1630 and one of the following: PSYC 2580, PSYC 3100, or PSYC 3620 and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

PSYC 4030 - Multicultural Psychology

3 hours Study of various theories and concepts of multicultural psychology, the impact of cultural factors on human behaviors, and challenges faced by underrepresented groups in society. Emphasis placed on the development of students' multicultural knowledge and experience.

Prerequisite(s): C or better in one of the following: PSYC 3100 or PSYC 3620 and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4040 - Psychology of Race in the U.S.

3 hours Exploration of highly sensitive issues and concepts related to racial diversity and intersections of race/ethnicity/sex/gender identity/social class/nationality.

Prerequisite(s): C or better in one of the following: PSYC 3100, PSYC 3620, or PSYC 3490 and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4050 - Cross-Cultural Psychology

3 hours Development of knowledge and awareness in how cultures affect human cognition, emotion, behavior, interpersonal connection, and mental health. Emphasis on cross-cultural comparisons regarding similarities and differences in cultural norms and cultural influences between East and West.

Prerequisite(s): C or better in PSYC 1630

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4110 - Interviewing Skills in Helping Professions

3 hours Introduction to the interviewing process in mental health service settings. Includes purposes, objectives, goals, types and skills of interviewing via lectures, plus taped and live demonstrations.

Prerequisite(s): C or better in PSYC 1630 and one of the following: PSYC 2580, PSYC 2600, PSYC 3300, or PSYC 4610 and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4300 - Biopsychosocial Challenges Related to Sexually Transmitted Infections

3 hours Examination of the biopsychosocial factors that are related to people living with sexually transmitted infections (STIs), with a focus on HIV/AIDS. Prepares students to be conscious of issues that people with STIs face daily. Students interested in HIV/AIDS as a social and medical phenomenon are encouraged to enroll.

Prerequisite(s): C or better in PSYC 1630 and one of the following: PSYC 2580, PSYC 3100, or PSYC 3490; and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4470 - Sexual Behavior

3 hours Impact of psychosocial factors on development and expression of human sexuality.

Prerequisite(s): C or better in PSYC 1630 and one of the following: PSYC 2580, PSYC 3490, or PSYC 3620 and Junior Standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4480 - New Directions in Psychology

3 hours In-depth study of traditional roles and interests versus current roles and interests of psychologists designed to keep students abreast of the rapidly expanding and changing field of psychology. Topics include changes of duties in schools, legal systems, law enforcement, business and industry, government, biology and medicine, as well as other areas.

Prerequisite(s): PSYC 1630 or PSYC 1650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4510 - Practicum

1–3 hours In-depth study of areas of specific interest. Practical experience in supervised settings.

Prerequisite(s): Junior Standing

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4520 - Personality

3 hours Major approaches to conceptualization of personality; psychodynamic, phenomenological and trait-type learning models.

Prerequisite(s): C or better in PSYC 3650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4600 - History and Systems

3 hours Principal historical antecedents of modern psychology, relevance to major contemporary systematic positions; philosophy of science, associationism, structuralism, behaviorism, functionalism, Gestalt and psychoanalysis; recent psychological theories.

Prerequisite(s): Grade of C or better in PSYC 3650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4610 - Psychopathology

3 hours Major psychoses, neuroses and other types of maladaptive behavior patterns that are common problems in society; descriptions of symptomatology, theoretical approaches and epidemiological variables.

Prerequisite(s): C or better in PSYC 3650 and Junior standing. For non-majors, PSYC 1630 with a grade of C or better and consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4620 - Child Psychopathology

3 hours Survey of the symptomatology, theoretical perspectives and treatment approaches of psychological disorders seen in infants, children and adolescents.

Prerequisite(s): PSYC 3620 or PSYC 4610.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4640 - Psychophysiology

3 hours Chemical, biological, and physiological processes in relation to the central and peripheral nervous systems, learning and memory, neuroanatomy, psychopharmacology, and emotion. Background in biology or chemistry strongly encouraged.

Prerequisite(s): C or better in both PSYC 1650 and PSYC 3650 and Junior Standing. For non-majors, PSYC 1630 or PSYC 1650 with a grade of C or better and consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4690 - Introduction to Learning and Memory

3 hours Explores the processes of acquiring and using knowledge. Basic principles in conditioning, concept learning and human behavior are taught as a foundation to the understanding of learning.

Prerequisite(s): PSYC 3650 or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4700 - Psychobiology of Stress: The Mind-Body Connection

3 hours The biology of the stress response is detailed. The effects of this response on a number of topics including but not limited to aging, memory and depression are discussed. The effects of the stress response on immunity and illness are highlighted.

Prerequisite(s): PSYC 4640 or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4820 - Sensation and Perception

3 hours The philosophical history of perception, psychophysics, neurobiological substrates of human sensory systems leading to phenomenological perception, body-brain sensory processing pathways, and the neuropsychology of disrupted sensation and perception.

Prerequisite(s): C or better in PSYC 1650 and PSYC 3650, or consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall and Spring

PSYC 4830 - Cognitive Psychology

3 hours Classic and contemporary theories of human thinking processes as related to perception, attention, memory, knowledge representation, reasoning, decision making, language, problem solving and consciousness.

Prerequisite(s): C or better in PSYC 3650.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4849 - Topics in Psychology

3 hours Selected topics of current interest and importance in psychology not covered by existing course offerings.

Prerequisite(s): C or better in PSYC 3650 and Junior Standing or Consent of the Department.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

PSYC 4850 - Research in Psychology

1–3 hours Conduct research on a psychological science question in association with a UNT faculty researcher. Research takes place in a human participants laboratory setting.

Prerequisite(s): Psychology major status, PSYC 3650 and consent of department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4950 - Honors Thesis

3 hours Research project for outstanding psychology students. The project must involve planning, conducting and defending an actual project.

Prerequisite(s): PSYC 2317, PSYC 3650, PSYC 3630.

For psychology majors with a minimum of 18 hours in psychology and a minimum grade point average of 3.5 in psychology and 3.0 overall.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

PSYC 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

Public Administration

PADM 2000 - Discover the City: Placemaking in the World

3 hours Explores urban development and place-making from a global perspective and examines how different policies impact livability, culture, environment, social equity, and public health.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 2100 - Cultural Competency in Urban Governance

3 hours Examines the diverse and sometimes competing demands of people of color, women, the elderly, sexual orientation and the economically disadvantaged on public policy development and execution. Addresses how public managers respond to the demands of diverse interests in American cities. Students develop an understanding of the importance of cultural competency to leadership, responsiveness and efficiency in the management of urban services. These values are discussed in relation to the management of diversity in the public workforce, city budgets and the distribution of public services.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 2120 - Introduction to Urban and Regional Planning

3 hours Provides an introduction to urban and regional planning by examining the history of urbanization, the evolution of planning thought and practice, and contemporary issues and planning approaches.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 2200 - Introduction to Conflict Resolution

3 hours Introduces students to important conflict resolution processes and techniques used in a variety of scenarios common in the public, nonprofit and private sector, as well as in personal and community situations. These primary processes include negotiation, mediation, arbitration, adjudication and a combination of these and other processes. Students develop insight through lecture, case studies, written assignments and student discussions and skills through role play simulations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3010 - Foundations of Philanthropy and Nonprofits

3 hours Foundational course for students interested in a career in nonprofit leadership studies. Examination of the philosophy, values, roles and responsibilities in nonprofit studies in today's society. An examination of historical events leading to the creation of nonprofit organizations and their impact on our communities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3020 - Public Management

3 hours Introduction to organization and management theories and practices as they concern federal, state and local governments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3100 - Workplace Conflict

3 hours Review of alternative dispute resolution (ADR) to address sources of conflict in the workplace. Examines procedures and benefits of arbitration, mediation, ombudspersons, minitrials, neutral fact-finding and other alternatives to litigation-based conflict resolution. Trends in use and ethical/professional considerations are considered.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3200 - Creating Innovative Cities

3 hours Successful cities rely on creativity and innovation. Explores planning for innovative cities through various theoretical and practical planning approaches.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3210 - Population Demographics and Urban Planning

3 hours Introduction to theories, strategies, and controversies surrounding the history and practical application of population data in urban planning and policy. Covers the key concepts, measures, and assumptions used to study population dynamics, including techniques for describing population characteristics and for understanding population change.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3220 - Land Use and Transportation Planning

3 hours Examination of transportation policy and planning and its relation to land use. Examines different modes of transportation from an environmental and economic perspective and the role of urban planners in enhancing transportation quality.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3230 - Visualization of Urban Place, Space, and Policy

3 hours Explore the powerful world of Geographic Information Systems (GIS) and its critical applications in urban planning and public policy. Introduces students to spatial data management, mapping, and spatial analysis techniques, emphasizing their relevance to real-world challenges in urban environments. Through hands-on projects, students learn to apply spatial analysis across various planning fields and develop their research addressing pressing urban issues using cutting-edge GIS methods. Perfect for students eager to harness technology to shape smarter, more sustainable communities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3410 - Financial Aspects of Government

3 hours Examines politics and management of taxation, budgeting, grants-in-aid and municipal bonds and managing the conflicts among politicians, administrators, and analysts in developing policies and programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 3420 - Bureaucracy and Public Policy

3 hours Study of the nature of bureaucracy, its role in policy development and the problem of bureaucratic responsibility.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4000 - Mediation

3 hours Defines and examines the process of mediation. Covers the history and development of mediation and introduces theories of conflict management. Reviews diverse settings of mediation, such as domestic, commercial, non-profit, employment and institutional environments. Significant legal, ethical, professional, cultural and gender considerations are explored. Students participate in mediation exercises and simulations.

Required for interdisciplinary minor in alternative dispute resolution.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4050 - Negotiation

3 hours Introduces the fundamentals of non-litigation strategies for a variety of business, professional and personal settings. Learning and skills are developed through lecture, role playing, out-of-class assignments, case studies and negotiation simulations.

Required for interdisciplinary minor in alternative dispute resolution.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4130 - American Intergovernmental Relations

3 hours Explores core relationships among federal, state, local, tribal, and territorial governments in contemporary policy controversies and debates regarding the balance of power. Contextualizes U.S. federal system with international alternatives. Investigates U.S. role in supranational and international organizations and associated debates regarding sovereignty.

Same as PSCI 4130 .

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4160 - Zoning and Land Use

3 hours Zoning is a common regulatory tool used by state and local governments to shape human development patterns. It is a driving force in a variety of economic, environmental, and social problems, including affordable housing and urban sprawl. Students are introduced to the basic tenants and legal structures that shape land regulation in the United States. Using case studies and existing databases, students explore alternative tools for land use regulation and development, ranging from zoning to community land trusts to conservation easements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4170 - Methods in Urban Planning Research and Analysis

3 hours Explores the tools and techniques urban planners and policy professionals use to understand urban problems and evaluate policy solutions. Provides an understanding of the basics of research design. Methods include survey research, housing analysis, economic analysis, built-environment analysis, and scenario planning. Students also develop skills to critically evaluate research reports in journals, professional reports, and the mass media.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4180 - Urban Planning Studio

6 hours In this capstone studio course students apply knowledge gained in urban planning coursework to a real-world problem, work closely with an external client, and enhance their skills and work portfolios by providing tangible deliverables and professional experiences. This course is for students pursuing the major in Urban Policy and Planning.

Prerequisite(s): PADM 4170.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4200 - Leadership Theory and Practice for Volunteer Managers

3 hours Overview of organizational leadership theory and practice for volunteer managers and community leaders. Students examine and develop a range of skills in a number of interpersonal areas: group dynamics, decision-making, managing differences, and leadership and influence as they pertain to primarily nonprofit organizations and their ability to lead a volunteer workforce.

May not be repeated if credit has been received for it at the graduate level.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4210 - Introduction to Philanthropy and Fundraising

3 hours Provides an overview of financial planning and fundraising practices in nonprofit organizations from the perspective of the giver. Students learn to assess the financial health of organizations, understand the duty of fiscal responsibility and develop and implement fundraising strategies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4220 - Proposal Writing and Grants Administration

3 hours This course introduces students to the basic steps in researching funding strategies, including how to use specialized software and the detailed steps required for preparing funding applications. Focuses on the skills and tools needed to monitor funds once grants have been awarded. The ability to secure funding is a skill transferable across public and private sector organizations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4240 - Volunteer Management Concepts and Applications

3 hours Analysis and review of day-to-day applications of management principles to the administrative and operating practices of contemporary volunteer programs in the public, not-for-profit and for-profit sectors. Focuses on volunteer program management and organization, including targeting, recruiting, training, supervising, motivating, counseling, retaining and recognizing volunteer workforces.

May not be repeated if credit has been received for it at the graduate level.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4250 - Community Development and Collaborative Planning

3 hours An asset-based approach to community planning that cities and nonprofit community-based organizations use to shape neighborhoods, cities, and metropolitan areas. Cities and collaborating organizations provide a virtual laboratory for examining the forces that shape them such as politics, population, finance, and environment.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4260 - Volunteer Program Planning and Evaluation

3 hours Seminar designed to provide students with the basic skills necessary to systematically design and plan volunteer programs and evaluate their effectiveness. Special emphasis is given to measuring program outcomes.

May not be repeated if credit has been received for it at the graduate level.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4270 - Public and Nonprofit Grants Management

3 hours Explores the entire grants management process, from identifying funding opportunities to negotiation and evaluation through real-world scenarios, with a special focus on aspects of Neighborhood Services and Community Development Block Grants (CDBG) for both federal and private grant management.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4300 - Nonprofit Leadership Capstone

3 hours Designed to crystallize the competencies covered in the nonprofit leadership studies major and minor program and to promote critical thinking and effective writing on those topics. Format includes exchange between students and nonprofit professionals on leadership and management issues to expand individual competencies, build leadership confidence and affirm learning acquired during program. Serves as a final preparation for internship/employment in a nonprofit agency.

Prerequisite(s): Consent of program director.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4310 - Community Service Internship

3 hours Supervised work in a community agency that is directly related to the student's major in the nonprofit leadership studies degree program. Duties, learning objectives, reporting and

supervisory functions are agreed on beforehand by the agency and the student.

Prerequisite(s): Meet the employer's requirements and consent of program director.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4450 - Public Policy Analysis

3 hours Assesses a range of topical policy areas and debates including but not limited to environmental policy, foreign aid, and education policy. Fundamental economic concepts and tools like benefit-cost analysis are used to assess the comparative effectiveness of policy interventions.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4900 - Special Problems

1–3 hours Special problems and research in economic development or regional/sectoral analysis.

Registration permitted only upon approval of instructor. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4910 - Special Problems

1–3 hours Special problems and research in economic development or regional/sectoral analysis.

Registration permitted only upon approval of instructor. May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PADM 4920 - Cooperative Education in Economic Development or Regional/Sectoral Analysis

1–3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): At least 6 hours of credit in economic development or regional/sectoral analysis courses; student must meet employer's requirements and have consent of the institute director.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Public Health

PUBH 1010 - Introduction to Public Health

3 hours This course will introduce students to the history of public health, key public health concepts and theories, and the interdisciplinary links between public health and other fields. Students will also learn about both domestic and global public health programs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 2015 - Research Methods in Public Health

3 hours Introduces students to research study designs, methods and data collection in public health. Students learn quantitative, qualitative, mixed methods, participatory approaches to research. The role of both clinical and observational trials in public health are examined.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 3010 - Social Issues and Behavioral Foundations in Public Health

3 hours Exposes students to challenges associated with non-medical drivers of health and individual behavior, which ultimately affect human health. Students are introduced to the concept of health for all and a broad overview of the practical application of these concepts.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 3020 - Community Health Education

3 hours Focuses on the study and improvement of health among population groups by promoting and protecting positive health behaviors and living conditions. Social and behavioral theories and research are covered.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 3025 - Environmental Health

3 hours Introductory course to environmental health for public health practice. Discusses environmental factors that affect the health of all living organisms. Covers topics such as the role of the environment in risk of disease, environmental disease agents, environmental epidemiology, environmental toxicology, environmental justice, etc.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 3030 - Global Public Health

3 hours Introduces students to global health. Explains forces that make people in some countries healthier compared to people in others. Introduces students to the determinants of global public health and health disparities at global levels. Emphasizes the interplay among social, cultural, economic, political and environmental factors in creating health and disease at global level.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 3040 - Epidemiological Concepts and Methods for Public Health

3 hours Objective is to provide students with an understanding of the basic principles of epidemiology as related to public health issues and challenges. Enables students to learn and understand concepts frequently used in epidemiology.

Prerequisite(s): MATH 1680, or comparable math course with advisor approval.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4015 - Ethics in Public Health

3 hours Introduces students to ethical issues in public health. Students learn and appreciate the principles of ethics and how values, ethical approaches and evidence should inform policies. They also understand the complex nature of ethics in public health policy and

intervention.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4020 - Biostatistics

3 hours Focuses on some statistical concepts and procedures used in public health. Important biostatistical concepts and reasoning are covered. Students learn descriptive and inferential statistics as well as some epidemiological concepts and designs.

Prerequisite(s): MATH 1680, MATH 1681X or comparable math course with advisor approval.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4050 - Public Health and Health Policy

3 hours Introduces students to a range of health policy issues as they relate to public health. Students learn social, ideological, economic and political forces that affect health policy-making process. They also learn the health care systems in different settings and the key players in health policy making.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4060 - Public Health Management and Leadership

3 hours Introduction to management and organizational leadership in public health. Several topics, such as U.S. healthcare systems, healthcare costs for individuals and populations, basic principles of health insurance, etc., are covered. Also, leadership-related theories and concepts as well as ethics and professionalism in public health are discussed. Students study a wide variety of public health leadership.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4070 - Public Health Informatics

3 hours Introduces students to ways in which information technology and communication systems can be used to foster better collaboration among healthcare providers for better patient outcomes. For public health practice, research and learning, the use of informatics helps to increase both personal effectiveness as well as the effectiveness of public health activities. Students learn about principles of informatics and examples of practice in public health, healthcare data and information, healthcare data analytics, electronic health records, health information exchange, key players in health information technology, and much more.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4080 - Public Health Capstone

3 hours This is the final course that students have to take in order to complete the Bachelor of Science program in public health. It has both a classroom and a service learning component. Students are to identify a public health problem, conduct a literature review of the problem and devise a solution to solving the problem. Students use the knowledge they have gained from all their courses in public health to critically analyze a public health problem. For the service learning components, students spend 100 hours practicing public health in the real world. This integrative experience helps students achieve cross-cutting competencies in communication, diversity and culture, leadership, professionalism, integration of theory and practice, and public health knowledge and skills.

Prerequisite(s): Public health majors only.

This course is designed to be taken in the final semester of the program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

PUBH 4900 - Special Problems

1–3 hours This individualized public health course provides students with the ability to work in-depth on a public health topic or focus of interest to them. The independent study project will be presented in a standard thesis format. Students will have an oral defense of their research for a successful completion of the course.

Prerequisite(s): PUBH major status; consent of instructor.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Purchasing

PRCH 4800 - Internship in Purchasing

3 hours Supervised work in a job related to student's career objective.

Prerequisite(s): Major in Supply Chain Management with a Purchasing track; PRCH 4810.

Must be within two semesters from graduation after the internship; eligible for your professional field courses; in good academic standing; job description is related to your major; internship is paid (hourly or salaried position; supervisor must be identified; will work a minimum of 240 hours during a semester.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRCH 4810 - Purchasing and Materials Management

3 hours From original planning through delivery of finished products; purchasing, inventory control, receiving, storage, production control, traffic and materials handling.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRCH 4825 - Sourcing Strategy and Supplier Relationship Management

3 hours Designed to provide a deep understanding of the strategic importance of effective procurement strategies and processes. The *Supply management* function is responsible for ensuring an organization has the requisite materials, services, and equipment to deliver on promises to its stakeholders. This occurs by designing supply systems for categories of spend and creating favorable supply contracts. Understand (1) the relationship among organizational, supply management and sourcing objectives; (2) frameworks and tools to analyze the supply conditions of a category, supply segmentation/portfolio analysis, spend analysis, need identification/demand, supply risk analysis, and supply market intelligence; (3) how to develop sourcing strategies to ensure quality supply; (4) the translation of category strategies into effective supply contracts; (5) and the development and management of the appropriate type of supplier relationships. Develop effective procurement strategies, navigate global supply chains, and build strong, sustainable relationships with suppliers.

Prerequisite(s): PRCH 4810.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRCH 4835 - Cost and Price Analysis

3 hours Designed to provide an understanding of cost estimating, cost analysis, price analysis, and total cost of ownership. Learn the various contract types and how contract type allocates risk between the buyer and supplier. Understand sources of data, rates, factors, and definitions, projection methods, factors affecting profit or fee, and application of statistical analysis including regression analysis, learning curve theory, and reverse auctions. Learn how pricing decisions are made for a specific commodity or service and market versus cost-based pricing decisions.

Prerequisite(s): PRCH 4810.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

PRCH 4845 - B2B Negotiations

3 hours Improve negotiation skills and capacity to plan for and conduct negotiations with suppliers that achieve supply-chain, organizational, and sourcing objectives. Learn various negotiation tactics and countermeasures and the appropriate situations in which to apply them. Learn how to acquire and effectively use power and information. Negotiations will be comprehensive, covering not just price/cost, but also elements such as contract terms and conditions, delivery terms, schedule, intellectual property rights, etc. Through mock negotiations, case studies, skill-building exercises, and exercise debriefings, students increase negotiating self-confidence and improve capacity to achieve win-win solutions. Designed to develop analytical skills, interpersonal skills, creativity (e.g., identifying creative solutions to conflict), and persuasive abilities.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Reading

EDRE 3350 - Early Language and Literacy Development

3 hours Course focuses on theoretical and practical applications of early language and literacy development (birth through grade K). With an emphasis on family and community literacy practices, this course will explore the ways in which children use and play with language as their earliest form of literacy and how teachers can capitalize on family and community literacy practices to create culturally sustaining classrooms. The course critically focuses on historical, political and local perspectives of language and literacy development, including the Science of Teaching Reading, and how those perspectives instantiate themselves in programs for young children.

Corequisite(s): EDEE 3330 and EDEE 3340.

Must be admitted to teacher education program; must be taken in Block A.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDRE 4450 - Reading and Writing, Birth through Grade 6

3 hours (3;1;0) Examines theoretical and practical aspects of emergent literacy. Focuses on practices that foster motivated, strategic readers and writers. Emphasizes development of early language and pre-literacy skills, common school literacy practices, parental/social influences and affective elements related to early reading. Includes an additional hour of field experience per week.

Prerequisite(s): Admission to teacher education; HDFS 1013.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDRE 4810 - Studies in Education

1–3 hours Organized class for program needs and student interest needs.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDRE 4820 - Reading and Writing in Grades 4–8

3 hours Examines reading and writing processes, the development of reading and writing abilities and skills, theories and models of reading, the nature of the balanced reading program, instructional strategies, planning and materials for the 4–8 literacy-learning environment.

Prerequisite(s): Admission to the teacher education program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDRE 4840 - Linguistically Diverse Learners

3 hours Designed to enhance the awareness and understanding of pre-service teachers regarding the linguistically diverse learner. Includes study of the language and learning needs of language minority students, affective aspects of the immigrant and refugee experiences and their impact on academic and linguistic development. Students will explore how to make practical application of course content in both the regular and the English-as-a-Second-Language classrooms.

Prerequisite(s): Admission to the teacher education program; EDRE 4450 or EDRE 4820 (for EC-6 and 4-8 English Language Arts; may be taken concurrently); LING 3060 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDRE 4850 - Teaching the Tools and Practices of Reading Across the Curriculum

3 hours Prepares preservice teachers in the area of reading as a subject, and reading as a tool for inquiry. Covers various models of teaching reading that range from skills oriented, to process oriented, to practice oriented perspectives.

Prerequisite(s): Admission to teacher education program; EDRE 3350.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDRE 4860 - Teaching the Tools and Practices of Writing across the Curriculum

3 hours Provides preservice teachers with instruction and practice in the teaching of writing related to purpose, audience and content. Emphasis is given to process writing and the teaching of writing in all content areas, including the use of technology and multiple modes, in order to introduce or give students practice with the writing conventions of a discipline and to help them gain familiarity and fluency with specific genres and formats typical of a given discipline.

Prerequisite(s): Admission to teacher education program; EDRE 3350.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources

3 hours Prepares pre-service teachers within both EC–6 and 4–8 certificate programs to plan for and implement literacy instruction across the curriculum. Selecting, evaluating and using developmentally and culturally appropriate materials and resources will be a focus as well as using content literacy strategies which support independent reading and writing in the content areas.

Prerequisite(s): Admission to the teacher education program; EDRE 4450 (for EC–6) or EDRE 4820 (for 4–8 English Language Arts) or EDCI 4060 (for 4–8 Social Studies, Science or Mathematics; 7-12 Secondary ELA and the prerequisite course may be taken concurrently).

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDRE 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDRE 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Real Estate

REAL 2100 - Principles of Real Estate

3 hours Survey of real estate principles, including real estate market, financial, investment and legal analysis. Home ownership and real estate investment for personal benefit are emphasized.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 3100 - Real Estate Agency

3 hours Creation, termination and practice of real estate agency relationships in regard to traditional leasing and marketing of property. Subagency, buyers' agents and dual agency theory and practice are presented as required by all persons seeking a Texas Real Estate License.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4000 - Real Estate Finance

3 hours Examination of the process and methods of financing both residential and commercial properties. Primary focus is on the lender's perspective in mortgage loan analysis.

Prerequisite(s): REAL 2100 and FINA 3770 (FINA 3770 may be taken concurrently.)

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4200 - Property Management

3 hours Examination of the process and methods of managing real property assets. Topics include property leasing, marketing, maintenance, personal supervision, value analysis, taxation and cash-flow analysis.

Prerequisite(s): REAL 2100.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4210 - Advanced Property Management

3 hours Detailed focus on advanced aspects of managing real property assets. Topics include market analysis and segmentation, advanced asset management and risk management.

Prerequisite(s): REAL 2100 with a "C" or better.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4300 - Real Estate Investments

3 hours Analysis of real estate investments during the origination, operation and termination phases. Primary emphasis is on financial feasibility and cash-flow analysis.

Prerequisite(s): REAL 2100 and FINA 3770 (FINA 3770 may be taken concurrently.)

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4400 - Real Estate Valuation

3 hours Theory and methods of residential and income property appraisal. Topics include real estate market analysis, highest and best use analysis, and capitalization techniques. Income property valuation techniques are emphasized.

Prerequisite(s): REAL 2100 and FINA 3770, (FINA 3770 may be taken concurrently.)

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4800 - Internship

3 hours Supervised work in a job related to student's career objective.

Prerequisite(s): Student must have 2.8 overall GPA, meet employer's requirements and have consent of department chair.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

REAL 4951 - Honors College Capstone Thesis

3 hours A major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Recreation, Event and Sport Management

RESM 1950 - Foundations and Career Opportunities in Recreation, Event, and Sport Organizations

3 hours Introduction to the recreation, event, and sport professions including philosophical and foundational perspectives, underlying concepts, and the role and advancement for the future. Orientation to the variety of services including settings, and the relationship to public, private, not-for-profit, and commercial organizations. Trends in services to various populations. An overview of career opportunities in the field.

RESM 1950 – Must be taken during the first semester enrolled in the program.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 2150 - Leadership in Recreation, Event, and Sport Organizations

3 hours (2;1) Study of the theories and practices related to leadership in the recreation, event and sport management professions. Emphasis is placed on leader development topics such as communication, conflict resolution, team building and motivation skills. Experiential learning opportunities are offered. Students assess their leadership strengths, weaknesses, threats, and opportunities and create a professional development plan to help them become successful leaders.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 2550 - Diversity and the Environment in the RESM Professions

3 hours Comprehensive overview of the role of recreation, event and sport services in global cultures. Sociological, economic, psychological and environmental implications of recreation, event and sport industries are explored with diverse groups. Societal and lifestyle changes are discussed with a multicultural focus and in relation to their impact on the future of these industries. Personal lifestyles are reviewed and discussed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 2900 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 2910 - Special Problems

1–3 hours Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 3010 - Ethics in Recreation, Event and Sport Management

3 hours Encourages students to integrate ethical theory with management and policy development practices in recreation, event, and sport. Introduction to the power and politics, ethical problems, dilemmas, and conflicts within sport, event, and recreation organizations; the basics of managerial activities necessary for governance and policy development; and the structure and function of various recreation organizations.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

RESM 3050 - Operations and Logistics in Recreation, Event and Sport Organizations

3 hours Students learn fundamentals and operation logistics of program planning and delivery. Space, security staffing, registration, cost, promotion, and assessment are highlighted. An event logistics

proposal is created to ensure accessibility and capture a variety of population groups across the recreation, event, and sport services markets.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 3450 - Social Issues in Recreation, Event, and Sport Organizations

3 hours Study of history, theories, philosophies, and techniques of providing inclusive RESM services. Barriers to individuals are discussed and strategies to address these barriers for groups such as people with disabilities, older adults, people of color, and gender differences.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 3500 - Foundations of Therapeutic Recreation

3 hours In-depth study of concepts associated with the practice of therapeutic recreation, including history, philosophy, professional development and medical terminology, as well as characteristics of illness, disease and disability. Overview of the process of therapeutic recreation, including assessing, planning, implementing and evaluating.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4050 - Management of Recreation, Event and Sport Organizations

3 hours Management topics in recreation, event, and sport industries are covered including strategic planning, organizational design, management theory, directing, controlling, problem-solving, and communication.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4060 - Aging and Recreation, Event, and Sport Management

3 hours Develops an awareness of the physiological, psychosocial, and economic aspects of aging that affect recreation, event, and sport behaviors and involvement patterns. Emphasis is on successful aging through engagement in recreation, event, and sport activities.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4070 - Human Resource Management in Recreation, Event, and Sport Organizations

3 hours Designed for recreation, event and sport management students to attain knowledge related to human resources management and understand and apply them in the sport, event and recreation contexts. Provides a basic understanding of (a) the nature of paid professional workers, volunteer workers, and clients in sport and recreation organizations; (b) individual differences in abilities, values, personality and motivation; (c) organizational processes of job design, staffing and performance appraisal; and (d) desired outcomes of job satisfaction and organizational commitment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4080 - Legal Aspects of Recreation, Event and Sport Organizations

3 hours In-depth study of legal situations which may be encountered by RESM professionals in the delivery of recreation, event and sport services. Examines the five legal areas: legal terminology and dimensions, concepts of liability, situations giving rise to litigation, case studies on program and activity areas, and insurance policies.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4100 - Internship in Recreation, Event, and Sport Organizations

3 hours Field-based experience in an approved recreation, event, or sport-related organization. Emphasis is placed on application of knowledge and skills to real-work job roles and responsibilities.

Recommended: RESM 4150.

May be repeated for credit up to a maximum of 12 hours. Must have department consent.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4150 - Capstone Experience in Recreation, Event and Sport Management

3 hours Capstone course is intended to provide a bridge from theory to professional practice. Determining a career direction, assuming professional roles, and performing professional job responsibilities are emphasized. Preparation for an in-depth internship affiliation in an approved recreation, event, or sport organization is included.

Recommended: RESM 1950, RESM 2150, RESM 3050, RESM 3450, RESM 4050, RESM 4080, RESM 4160, RESM 4180, RESM 4190 and RESM 4250.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4160 - Assessment and Data Analytics in Recreation, Event and Sport Organizations

3 hours Examination and application of models and methodologies for evaluating programs in recreation, event, and sport delivery systems. Includes research methods and design, statistical analyses, and technological skills required to propose, implement, and analyze recreation, events, and sport programs and services.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4180 - Facility and Area Management in Recreation, Event, and Sport Organizations

3 hours Includes basic elements, procedures and processes involved in planning, designing, developing, and maintaining recreation, park, event, and sport facilities and areas. Students assess and evaluate existing facilities and areas in terms of functionality, access standards, and maintenance operations.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4190 - Finance in Recreation, Event, and Sport Organizations

3 hours Overview of fiscal administration in RESM, including various revenue sources, budgeting and the budgetary process, pricing, break-even analysis, cash flow, and other financial tools and concepts focusing on controlling costs and minimizing risks while increasing revenue.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4200 - Entrepreneurship in Recreation, Event, and Sport Organizations

3 hours Survey of the development and management of commercial goods and services offered in recreation, event, and sport markets, with a focus on entrepreneurship. Starting new ventures, innovation, and risk-taking are explored.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4250 - Marketing in Recreation, Event, and Sport Organizations

3 hours Introduces students to the theories, concepts, and development of advanced principles of marketing in the sport industry with emphasis on sport companies, intercollegiate athletics, professional sport, and multisport club operations. Designed to provide students with a broad overview of the important tenets of sport marketing process and provide students with opportunities to apply this knowledge by creating and developing effective and efficient marketing plans.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4340 - Event Production in the Recreation, Event and Sport Organizations

3 hours A project-based course which includes producing a community event with public/private partnerships. Students plan and implement a community development initiative.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4450 - Ticket and Sponsorship Sales in Sport Organizations

3 hours This course will introduce students to the theories, concepts and development of fundamental principles of sponsorship and sales in the sport industry with emphasis on all levels of programs and in all types of contexts. Particularly, this course is designed to provide students with a broad overview of the important tenets of sport sponsorship process as well as critical components of sales in various programs. It will also provide students with opportunities to apply this knowledge by creating and developing sponsorship and sales programs.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4560 - Therapeutic Recreation Program Planning

3 hours Study of current practices used in therapeutic recreation service design and delivery. Examines various service delivery systems, models of therapeutic recreation and standards of practice. Emphasizes a systematic approach to individualized and comprehensive therapeutic recreation planning.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4760 - Facilitation Techniques in Therapeutic Recreation

3 hours In-depth study and application of facilitation techniques for clients in therapeutic recreation programs. A review of various techniques including leisure education, transactional analysis, reality therapy, behavior modification, values clarification, assertiveness training, relaxation therapy, reality orientation, re-motivation, activities therapies and therapeutic relationships.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4800 - Seminar in RESM

1–6 hours Organized classes for specific program needs and student interests.

Prerequisite(s): Consent of department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4900 - Special Problems in Recreation, Event and Sport Management

1–6 hours Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

RESM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Rehabilitation

RHAB 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 3000 - Active Listening in the Helping Professions

3 hours Students engage in opportunities for self-reflection, learn and practice the main tenets of active listening, and gain presentation skills essential to the human services fields.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 3100 - Disability and Society

3 hours Explores the historical and current treatment of persons with disabilities. Examines the impact of social institutions, public policy and attitude on service provision with emphasis on the impact current legislation and research have had on the marginalization and segregation of persons with disabilities.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 3900 - Case Management in Rehabilitation

3 hours Application of the rehabilitation model as an approach to individualized service delivery. Focuses on interviewing, assessment, individualized service planning and coordination of rehabilitation services.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 4100 - Rehabilitation Service Delivery Systems

3 hours Reviews rehabilitation services within their organizational contexts. Examines service delivery models and dynamics, as well as their application through public and private resources. Includes review of program evaluation strategies, field visits and review of practicum application process.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 4200 - Physical and Psychosocial Aspects of Disability

3 hours Stages of adjustment to disability, impact of age at onset, impact on family. Introduction to consumer-based health perspectives. Overview of etiology, progression and treatment of major disabling conditions related to cognition, emotion and addiction and other disorders related to the nervous system. Includes the interplay of physical, psycho-social and vocational implications of these disorders.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

RHAB 4300 - Introduction to Psychiatric Rehabilitation

3 hours Overview of the field of psychiatric rehabilitation for students who are interested in providing services to individuals

with severe mental illnesses (psychiatric disabilities). Review of the principles and values of psychiatric rehabilitation, emphasizing consumer empowerment and recovery. Covers a brief history of the field, current practice models and identifying important issues facing the psychiatric rehabilitation practitioner today.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4500 - Assessment in Rehabilitation

3 hours Principles, techniques and procedures used in the assessment process in rehabilitation, including assessments related to identification of issues of addiction, vocational assessments and situational assessments.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4700 - Employment Services

3 hours Covers basic job development and job placement skills and activities. Includes job analysis, supported employment, transition services and labor market analysis.

Same as SOWK 4600.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4800 - Studies in Rehabilitation

1–3 hours Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4880 - Rehabilitation Practicum

3 hours Practical experience in a supervised setting aimed at the integration of theory and practice and refinement of skills. Requires a minimum of 200 hours within the practicum setting plus attendance at weekly integrative seminars.

Prerequisite(s): A minimum of 18 hours of rehabilitation course work, including RHAB 3000, RHAB 3100, RHAB 4200 and RHAB 3900.

May be repeated for credit. Application for approval of the practicum site occurs in the term/semester prior to enrollment in this course and is facilitated by the practicum instructor and/or student advisor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

RHAB 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Risk Management and Insurance

RMIN 2500 - Personal Risk Management

3 hours Surveys the risk management and insurance disciplines from the individual's perspective. The course incorporates an award-winning project where students create their own grade insurance product and market it to other students. Recommended for all students, regardless of major field of interest. This course also serves as a basis for more advanced RMIN courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 3100 - Introduction to Risk Management and Insurance

3 hours Examination of risk and insurance with an emphasis on the fundamental principles of risk management and the insurance mechanism, various insurance products, and an overview of insurer operations and the insurance industry. Recommended for all students, regardless of major field of interest. This course also serves as a basis for more advanced RMIN courses.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4300 - Property/Liability Risk Management and Insurance

3 hours The course provides a survey of commercial exposures to property and liability insurance contracts. Students will develop the ability to understand, and navigate, the content of various property and liability insurance contracts in resolving claim coverage scenarios.

Corequisite(s): RMIN 2500 or RMIN 3100.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4310 - Insurance Company Operations

3 hours This course provides an overview of both the broader operations of the insurance industry as well as the internal operations of a typical property-liability insurance company. Students will be exposed to many of the specific job functions within a typical property-liability insurance company. Students will also learn to navigate and interpret insurance company financial statements.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4600 - Corporate Risk Management

3 hours Study of financial effects of risk on businesses institutions; identification and evaluation of risk; selection of risk treatment/financing tools; implementation and review of tools used; probability analyses of data and financial evaluation of alternative tools.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4800 - Internship

3 hours Supervised work in a job related to student's career objective.

Prerequisite(s): RMIN 2500 or RMIN 3100 with a grade of C or above. Students must meet the employer's requirements and have consent of the department chair.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

RMIN 4951 - Honors College Capstone Thesis

3 hours A major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Science Project Design and Analysis

SPDA 2012 - Internship I

1–6 hours Learn basic job skills and gain an initial industry experience. Student must meet employer's requirements and consent of the internship director.

Prerequisite(s): Must have a cumulative GPA of 2.5 and permission of internship director or program director.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SPDA 3012 - Internship II

1–6 hours Identify and explore career options. Student must meet employer's requirements and consent of the internship director.

Prerequisite(s): Must have a major-specific minimum GPA of 2.5 and permission of internship director or program director.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SPDA 4012 - Internship III

1–6 hours Helps prepare students to enter a chosen career. Student must meet employer's requirements and get consent of the internship director or program director.

Prerequisite(s): SPDA 3012 with the grade of a B or better. Must have a major-specific minimum GPA of 2.5 and permission of internship director or program director.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Secondary Education

EDSE 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDSE 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDSE 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

EDSE 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $23.30

Social Work

SOWK 1450 - Introduction to Social Work

(SOCW 2361)

3 hours History and philosophy of social work in the United States; social welfare agencies in the community and social services offered; requirements for professional social work practice.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 2430 - Policies, Issues and Programs in Social Welfare

(SOCW 2362)

3 hours Current social policies and issues affecting the development of social welfare services; relationships between basic societal values and social welfare services.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 2900 - Special Problems

1–3 hours Individualized instruction in academic content or career-related experience in special circumstances.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 3000 - Foundations of Interviewing and Interpersonal Skills

3 hours Prerequisite for admission into the social work program and serves as a foundation for direct practice courses. Explores the components of the engagement process to help students understand the importance of self-awareness and interpersonal skills. Students develop skills essential to building professional relationships, interviewing techniques and effective communication. Emphasizes the demonstration of skills through simulation activities in the classroom.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 3150 - Addictions

3 hours Examines the relationship of substance abuse and addiction to individual functioning and health, social welfare, criminality and family life. Reviews the history of drug use, control and treatment as well as modern methods of treatment.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 3500 - Human Behavior and the Social Environment I

3 hours

Part of a two-course sequence focusing on Human Behavior in the Social Environment (HBSE). Examines a multidimensional, person and environment framework addressing the interactions between varied factors that influence behavior in a multicultural society. Students will analyze theories of human development, functioning and well-being in the first half of the life span.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $18.40

SOWK 3525 - Violence in Families

3 hours This course emphasizes increasing students' sensitivity towards violence in "families," broadly defined to include any intimate relationship. The extent, risk factors and traumatic effects of this issue are explored by applying theoretical perspectives to facilitate understanding and to differentiate between various forms of violence. Recognition of the importance of violence as shaped by the social location of vulnerable and oppressed groups is also examined. A trauma-informed approach is used to address the consequences of survivors' experience with multiple forms of trauma often leading to health and mental health concerns. Societal responses such as prevention and treatment models for recovery are assessed. Students will critically examine their own responsibility for addressing this grave issue and strategies for change.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 3610 - Social Work Practice I

3 hours Focuses on generalist social work practice with individuals. Presents conceptual frameworks, intervention methods and skills for practice with diverse client populations across the lifespan. Uses the strengths perspective for fostering client growth and empowerment. Emphasizes the individual in his or her social environment.

Prerequisite(s): Formal admission to the major.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 3870 - Social Work Research and Practice

3 hours Information about social scientific methods for social work practice and its evaluation, including research quantitative and qualitative methodologies and designs, data sources, analysis.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4000 - Ethics and Professionalism in Practice

3 hours Examines the knowledge base of ethics, values and professional social work practice. Students explore the impact of these processes from multiple practice settings, dynamics with client systems, and differing social contexts. Self-reflection also is explored to help students assess their personal strengths, biases and values as they relate to professional practice. This assessment helps students become socialized and identify as emerging professionals. Students also learn to apply critical techniques using an ethical decision-making model to make decisions consistent with professional values and ethics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4325 - The Intersection of Trauma and Substance Use

3 hours In this course students will explore the intersectionality of trauma and substance use disorders across the life span. This includes the examination of the characteristics of various life traumas and the social, psychological and biological impact that may be associated with substance use. Students are expected to recognize these signs and symptoms with emphasis on the integration of learned knowledge and skills. Included in the course is examination of processes such as basic screening tools, assessment and use of interdisciplinary interventions. The principles of empirically supported treatment modalities will be examined, as well as new and emerging research and its implications. Pertinent policy issues and the needs of diverse populations are also addressed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4400 - Social Work Practice II

3 hours Focus on generalist social work practice with families and groups. Presents conceptual frameworks, intervention methods and skills for practice with diverse client populations. Uses the strengths perspective for fostering client growth and empowerment. Emphasizes the interaction of the family/group and the surrounding social systems.

Prerequisite(s): SOWK 3610.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4430 - Applied Social Welfare Policy

3 hours Exploration of the philosophies that underlie social welfare policy; in-depth analysis of social policies and exploration of ways to impact social policy development and change. Students carry out an analysis of a selected social welfare policy area.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4500 - Human Behavior and the Social Environment II

3 hours This is part of a two-course sequence focusing on Human Behavior in the Social Environment (HBSE). Examines a multidimensional, person and environment framework addressing the interactions between the varied factors that influence behavior in a multicultural society. Students will analyze theories of human development, functioning and well-being in the second half of the life span.

Prerequisite(s): SOWK 3500.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4540 - Human Diversity for the Helping Professions

3 hours Promotes competence in the role of helping professionals with diverse and vulnerable populations. Focuses on factors affecting the complexities of the human experience. Enhances self-awareness and explores systematic processes of oppression. Conditions for culturally relevant change strategies and advocacy in a global society are examined.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4600 - Employment Services

3 hours Covers basic job development and job placement skills and activities. Includes job-analysis, supported employment, transition services and labor market analysis.

Prerequisite(s): RHAB 3100 or consent of department.

Same as RHAB 4700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4610 - Social Work Practice III

3 hours Macro practice for generalist social workers. Includes work in communities, organizations and other social systems. The impact of social policy is a particular focus. Presents conceptual frameworks, intervention methods and skills for practice in diverse settings. Uses the strengths perspective for fostering community empowerment.

Prerequisite(s): SOWK 4400.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4700 - Child Welfare Practice and Services

3 hours This course presents the history of child welfare practices, social institutions, policy development and the social service delivery system. Utilizing a trauma-informed lens, the dynamics of child abuse and neglect, family structures, support systems and methods

of intervention will be examined. Students will recognize that the impact of trauma is experienced not only by children and families in the child welfare system, but also by foster families, kinship caregivers and social service providers. Students will examine their own beliefs and values to address issues, as well as the ethics inherent in this system. The development of assessment skills on both a macro and micro level will be expected, taking into account adverse childhood experiences and historical trauma.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4725 - Theory and Practice in Mental Health

3 hours This course will familiarize students with essential knowledge on the vulnerabilities of individuals with mental impairments to better understand their lived experiences and potential adverse effects. This is explored through appraisal of the risk of unaddressed traumatic experiences and its implications for mental health across the life span. Students will understand symptom severity and screening processes, classification systems, aspects of assessment, and skills needed to serve individuals, families, groups and communities impacted by this illness. Evidence-based interventions will be explored that include addressing paths to recovery using trauma-informed approaches. Students will understand the challenges of stigma, lack of access, and the integration of policies to avoid trauma-inducing service approaches.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4870 - Social Work Integrative Seminar

3 hours Provides a forum in which students share experiences encountered in the field, discuss issues related to practice and service delivery systems, demonstrate application of research to practice, and integrate field and classroom learning.

Prerequisite(s): Acceptance into practicum and satisfactory completion of all other social work courses. Taken concurrent enrollment in SOWK 4875.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4875 - Social Work Field Practicum

9 hours Field practicum in a social agency. Includes direct and indirect service activities in a community agency or program related to previous course work. Refinement of applied skills and evaluation of social work practice in an applied setting.

Prerequisite(s): Acceptance into practicum and the satisfactory completion of all other social work courses. Taken concurrently with SOWK 4870.

Pass/No Pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4880 - Quantitative Methods of Social Research

3 hours Role of quantitative methods in social research; application of quantitative techniques and procedures to social data, statistical inference; data processing.

Same as AGER 4880 .

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4890 - Topics in Social Welfare

3 hours Selected topics in social welfare.

Prerequisite(s): SOWK 1450 or consent of chair.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

SOWK 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $18.40

Sociology

SOCI 1510 - Introduction to Sociology

(SOCI 1301)

3 hours Introduces significant sociological concepts, theories, and social research methods, including social structure, culture, poverty, inequality, health, race, class, gender, and social change.

Required of all sociology majors.

Core Category: Social and Behavioral Sciences
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 1520 - Contemporary Social Problems

(SOCI 1306)

3 hours Exploration of past and current social problems related to social inequality, problems of deviance and conformity, and social institutions through the lens of sociological theoretical perspectives. Emphasis may vary, but the focus is on social problems related to wealth and power, the environment, poverty, crime and justice, the economy, work, family, and/or health care.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 2050 - Sociology of Sport

3 hours Study of social behavior in sport, with particular emphasis on its relationship to the cultural perspectives of socialization, minorities, economics, politics and current issues.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 2070 - Introduction to Race and Ethnic Relations

3 hours Introduction to the basic theories within current and historical race and ethnic relations. May include examination of evidence of continuing prejudice, institutional discrimination and modern forms of racism. Other topics may include assimilation, pluralism, immigration, segregation and racial identity.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3000 - Sociology of Marriage and Family

3 hours Focuses on the role and influence of the family as a primary group and social institution; marriage and family dynamics; and contemporary and historical patterns in the U.S. and other countries. Other topics may include dating and hooking up, cohabitation, breaking up and divorce, domestic violence, and single parents.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3110 - Sociology of Mental Health, Mental Illness and Mental Health Care

3 hours Effects of social stresses and social integration on the mental health of various age, sex, ethnic and other groups within society; the mental health care system and problems of access to that system among different subgroups in the population.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3120 - Sociology of Health and Illness

3 hours Effects of social factors, such as age, sex, race and social class, on health and illness; differential access to health care services among subgroups of the U.S. population, including Blacks, Hispanics, Indians and the elderly; strains in the organization of the health care delivery system.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3133 - Cybercrime and Social Behavior

3 hours The social and human dimensions of cybercrime. Focusing on social structure, sociological and deviance theories, and socio-cultural contexts, students critically examine the typology and impact of cybercrime across local, national, and global landscapes. Topics may include Generative AI, deep fakes, fake news, hacking, hacktivism, cyberterrorism, issues of power, inequality, race, class, gender, age, deviance and geopolitical aspects molding both victimology and perpetrators in cyberspace.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3200 - Sociological Theory

3 hours Survey of development of sociological theory; emphasizes nature and types of contemporary theory.

Prerequisite(s): SOCI 1510 or equivalent.

Required of all sociology majors.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3220 - Quantitative Data Collection

3 hours Principles and procedures, sources of data, techniques of collection and analysis of quantitative data. Focus on survey research, secondary data analysis and other quantitative methods.

Prerequisite(s): SOCI 1510 and advanced (junior or senior) standing.

Required of all sociology majors. A grade of C or better in this course is required for graduation.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3240 - Qualitative Research Methods

3 hours Introduces theories and practices that guide the collection and analysis of qualitative data, focusing on how sociologists use interviews, participant observation, focus groups and other qualitative methods.

Prerequisite(s): SOCI 1510 and advanced (junior or senior) standing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3280 - Quantitative Data Analysis

3 hours Role of quantitative methods in social research; application of quantitative techniques and procedures to social data, statistical inference; data processing.

Prerequisite(s): SOCI 3220 or equivalent

Required of all sociology majors.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3300 - Urban Sociology

3 hours Focuses on the rise of the city, trends in urbanization and suburbanization in the U.S. and globally, and urban social problems. May cover topics such as homelessness; gentrification; and urban social policy such as urban renewal and public housing.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3330 - Social Inequality and Stratification

3 hours Bases of social differentiation; status, power and mobility in social systems; influence of stratification on behavior; class structure in the United States.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3500 - Childhood and the Transition to Adulthood

3 hours Explores the social factors and institutions affecting children, adolescents, and the transition to adulthood in modern society; emphasis on family life and education.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3540 - Racial and Ethnic Minorities

3 hours Focuses on the conditions and distribution of race and ethnic minorities; patterns of and explanations for racial inequalities; representations in media and culture.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3550 - Social Movements

3 hours Focuses on theories of social movement emergence, growth and decline. Covers a variety of case studies of social movements, with a particular attention to the role of organized protest in social change.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3630 - Drugs, Crime and Society

3 hours Examines the relationship between drugs, crime and human behavior. Explores the relationship between drug abuse and crime and the policy proposals developed to control drug trafficking, drug abuse, and drug-related crime, as well as the multi-faceted aspects and effects of chemical abuse and dependency.

Same as CJUS 3630.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3700 - Sociology of Religion

3 hours Explores the sociological approach to studying religion in society. Provides an overview of historical and current sociological research on religion. Topics may include the social and structural influences on individuals' and societies' religiosity; secularization theory; denominationalism and congregationalism; church-sect theory; religion and race, class and gender; and separation of church and state.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3800 - Sociology of Work

3 hours Provides a historical and theoretical introduction to work under capitalism from the Industrial Revolution to present. Covers contemporary issues such as inequality, discrimination, automation, and trends in the future of work.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4160 - Developing Societies

3 hours Changing culture and institutions — family, population, religion, work and politics — in developing nations in South and Central America, Asia, and Africa; impact of industrial nations on societies experiencing rapid urban, bureaucratic, technological and industrial growth; implications for war and peace in the world.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4170 - Environmental Sociology

3 hours Examines the social causes of global warming, the climate crisis, extinction of living organisms, environmental degradation, and potential solutions. Considers the unequal effects of climate change and natural disasters on lower-income marginalized communities, referred to as Environmental (in)Justice.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4210 - Intersectionality

3 hours Explores the interrelation and co-construction of systems of inequality to engage with intersectionality as an analytical framework for examining power and class stratification. Topics include systems of race, gender, and class stratification.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4240 - Sociology of Sexuality

3 hours Sexuality and how it is perceived, defined and experienced in the context of society. Course explores sexuality as a social and historical construction and focuses on how sexuality influences our lives as reflected in social norms, attitudes and beliefs, and through public and private policies and practices.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4250 - Gender and Society

3 hours Analyzes gender as a major social institution which intersects with all other institutions, especially the family, work, religion, politics and education. Stresses programs to change the unequal treatment of women and men in these areas. Surveys contemporary changes and cultural variability in gender role definitions.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4260 - Topics in Sociology

3 hours Investigation, analysis and discussion of a significant, contemporary topic.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4340 - Social Psychology and Behavior in the Social Environment

3 hours Sociological examination of social psychology exploring the self and its relation to society, behaviors and attitudes, attraction, conflict, culture, group dynamics and conformity, and prejudice. Includes sociological social psychology theories.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4350 - Community Organization

3 hours Principles of community organization and disorganization; agencies and programs dealing with contemporary problems facing the community.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4550 - Sociology of Aging

3 hours Twenty-somethings, generation Xers, baby boomers—all will be senior citizens sooner or later. Their sex, race/ethnicity, and social class will affect their experience of aging. Course explores issues related to successful aging, including what young adults should be doing now to ensure that they have happy, healthy, wealthy, and creative golden years.

Same as AGER 4550.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SOCI 4580 - Immigration and Race in Contemporary U.S.

3 hours Examines historical and contemporary immigration to U.S. in relation to race, ethnicity, and citizenship; theories and case studies of migrant flows and integration.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4600 - Internet and Society

3 hours Social consequences of the internet and information technology; impacts on everyday life, family life, identity, social networks, social inequalities, and politics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4630 - Deviance and Control

3 hours Introduction to the basic sociological theories regarding deviance and control. Includes how meanings around deviance are socially constructed and often experience change over time. Topics include social control, constructionism, moral panics, and moral entrepreneurs.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4650 - Education and Society

3 hours Explores the role of education and schooling in society, educational inequalities in the U.S., global comparisons of schooling, and educational policy from a sociological perspective.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4750 - World Population Trends and Problems

3 hours Patterns of population growth; trends of fertility and mortality; migration; social and economic consequences of population change.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4850 - Applied Research and Careers in Sociology

3 hours Sociology majors apply core sociological concepts to develop a data-driven project, attain marketable skills in accessing and analyzing data, and explore careers.

Prerequisite(s): C or better in SOCI 3280 or equivalent. Prerequisite can be waived with consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4911 - Sociology Mentored Research Experience

3 hours Individualized research experience conducted by a student majoring in sociology under the supervision and mentorship of a sociology faculty member.

Prerequisite(s): Must be Sociology major; at least junior class status; requires consent of sociology faculty member.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4950 - Sociology Internship

3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Junior/Senior status and at least 9 credit hours in Sociology.

Pass/no pass only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SOCI 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Spanish

SPAN 1010 - Elementary Spanish

(SPAN 1411)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 1020 - Elementary Spanish

(SPAN 1412)

3 hours Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): SPAN 1010 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 1030 - Review of Elementary Spanish

3 hours One-semester review of elementary Spanish. Emphasis on the enhancement of listening, reading, writing and speaking skills in Spanish.

Recommended: Two years of high school Spanish or equivalent.

May not be taken if credit has been received for SPAN 1010 or SPAN 1020.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 2040 - Intermediate Spanish

(SPAN 2311)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): SPAN 1020, SPAN 1030 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 2050 - Intermediate Spanish

(SPAN 2312)

3 hours Grammar, composition, oral-aural practice and readings.

Prerequisite(s): SPAN 2040 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3001 - Advanced Conversation for Non-Native Speakers

3 hours A variety of focused oral activities for non-native speakers of Spanish.

Prerequisite(s): SPAN 2050 or its equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3002 - Advanced Conversation for Native/Heritage Speakers

3 hours A variety of focused oral activities for native speakers of Spanish.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3003 - Advanced Grammar

3 hours Advanced study of Spanish grammar with emphasis on especially challenging aspects for Spanish language learners.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3004 - Advanced Composition

3 hours Both native and non-native learners of Spanish will improve their writing abilities in the language by writing diverse types of compositions.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3020 - Introduction to Spanish Translation

3 hours

Basic techniques of translating written texts from Spanish to English and from English to Spanish with emphasis on literary texts. Taught in Spanish and English, where appropriate.

Prerequisite(s): 3 credit hours of 3000- or 4000-level Spanish or equivalent.

Recommended: Students should have at least a high-intermediate level of Spanish fluency to be successful in this class.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3030 - Short Stories, Big Vibes: Latin America in Miniature

3 hours Selected readings in Spanish-American short stories with emphasis on techniques for gaining reading fluency in Spanish.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3040 - Introduction to Spanish Interpretation

3 hours An introduction to learning to carry out Spanish to English interpretation (consecutive and simultaneous) in professional settings as well as informal situations. Students learn interpretation techniques and specific sets of vocabulary as well as standards and ethics of the profession.

Prerequisite(s): 3 credit hours of advanced Spanish at the 3000- or 4000-level or equivalent.

Recommended: Students should have at least a high intermediate oral fluency in Spanish to be successful in this class.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3050 - Readings in Hispanic Literature

3 hours Selected readings in modern Spanish and Spanish-American literature with emphasis on conversational and written practice.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3080 - Spanish Language Proficiency for Educators

3 hours

Development of Spanish proficiency through reading, writing, listening and speaking. Emphasis is given to the use of academic Spanish and pedagogical practices in the bilingual classroom. Prepares students to pass the BTLPT and LOTE examinations successfully. Taught in Spanish.

Recommended: Open to students seeking certification in bilingual education.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3110 - Analysis of Hispanic Literature

3 hours Literary terminology, analysis of text, and differences among the genres. Readings include writings from a wide variety of Hispanic authors (both traditional and contemporary, from Spain and Latin America).

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish (SPAN) courses or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3120 - Aspects of Contemporary Spanish Culture

3 hours Study of specific aspects in Spanish culture, including historical, literary, artistic, political and economic arenas.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3130 - Topics in Latin American Culture

3 hours Study topics in Latin American culture, including historical, literary, artistic, political and economic arenas.

Prerequisite(s): SPAN 2050 or equivalent.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $11.10

SPAN 3140 - Mexican Civilization

3 hours Study of the politics, social structures and traditions of the Mexican world from the pre-Columbian period until today, with a special focus on their contemporary life in order to build a foundation for a more in-depth study of the life, literature and culture of Mexico. Taught entirely in Spanish.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3150 - Spanish Culture and Civilization

3 hours Study of the politics, social structures and traditions of the Spanish world from the Paleolithic period until today, with a special focus on their contemporary life in order to build a foundation for a more in-depth study of their life, literature and culture. Taught entirely in Spanish.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3160 - Latin American Culture and Civilization

3 hours Study of the politics, social structures and traditions of Latin America from the indigenous period until today, with a special focus on their contemporary life in order to build a foundation for a more in-depth study of Latin American culture. Taught entirely in Spanish.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3180 - Latin American Culture Through Film

3 hours An introduction to Latin American culture through film which includes linguistic varieties, socio-economic and historical context and gender roles.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3510 - Spanish for Law Enforcement

3 hours Emphasizes the Spanish language capabilities needed in the law enforcement field to communicate with the Spanish speaking population. Specialized vocabulary, scenarios, sample dialogues and information on Hispanic culture as they relate to law enforcement.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3520 - Spanish for Social Services

3 hours Emphasis on Spanish language skills needed in the area of social services to communicate with Hispanic clients and staff. Includes specialized vocabulary, workplace scenarios, dialogues and information on Hispanic culture related to this profession.

Prerequisite(s): SPAN 2050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3530 - Spanish for Hotel and Restaurant Management

3 hours Emphasizes the Spanish language capabilities needed in the hotel and restaurant management fields to communicate with Hispanic customers and staff. Includes specialized vocabulary, hotel and restaurant scenarios, sample dialogues and information on Hispanic culture related to these two industries.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $11.10

SPAN 3540 - Spanish for Travel and Tourism

3 hours Emphasis on Spanish language skills needed in the travel and tourism industry to communicate with Hispanic clients and staff. Includes specialized vocabulary, travel scenarios, dialogues and information on Hispanic culture related to those industries.

Prerequisite(s): SPAN 2050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3550 - Spanish for the Medical Professions I

3 hours Emphasizes the Spanish language capabilities needed in the medical field to communicate with Hispanic patients. Includes specialized medical vocabulary, medical scenarios, sample dialogues and information on Hispanic culture related to health care.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3560 - Spanish for the Medical Professions II

3 hours Extension of Spanish for the Medical Professions I, further building the Spanish language skills needed in the medical field to communicate with Hispanic patients and/or employees. Focuses on specialized medical vocabulary, medical scenarios, sample medical dialogues and information on Hispanic culture as it relates to health care.

Prerequisite(s): SPAN 2050 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4010 - Aspects of Contemporary Mexican Culture

3 hours Study of specific aspects in Mexican culture, including historical, literary, artistic, political and economic arenas.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4020 - Language, Culture and Community Service

3 hours Study of Spanish-language variants and cultural customs of Hispanic communities. Includes a community learning experience. May be repeated once as topics vary.

Prerequisite(s): One advanced Spanish course or bilingual students, and approval of the department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4040 - Spanish Writing for the Mass Media Professions

3 hours Emphasizes the writing skills needed in the mass media profession to communicate with a wider Hispanic community. Cultural differences and writing styles are addressed through authentic oral and written ads.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4061 - Spanish for Social Services II

3 hours Spanish language skills needed in the area of social services to communicate with Hispanic clients and staff. Includes specialized vocabulary, workplace scenarios, dialogues and information on Hispanic culture(s).

Prerequisite(s): Must have completed one advanced SPAN class at the 3000/4000 level.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $11.10

SPAN 4080 - Business Spanish

3 hours Oral, written and reading skills in Spanish for business purposes, as well as a cultural understanding of how business transactions are conducted in the Hispanic world.

Prerequisite(s): 3 hours of advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4150 - Foreign Language Teaching Methods

3 hours Study of foreign language curriculum, instruction and assessment for future and current teachers of Spanish. Designed for students in a teacher preparation program.

Prerequisite(s): 6 hours of advanced Spanish (3000 or 4000 level), or consent of department.

Same as FREN 4150, GERM 4150 and JAPN 4150.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4210 - Spanish Phonetics and Pronunciation

3 hours Study of the Spanish sound system and how it corresponds to Spanish orthography and pronunciation.

Prerequisite(s): 3 hours from advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4242 - Latin American Fantastic Literature and Science Fiction

3 hours Chronological study of fantastic literature and science fiction genres in Latin America from the nineteenth and twentieth centuries.

Prerequisite(s): 6 hours of upper level Spanish.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4250 - Acquisition of Spanish as a Second Language

3 hours Overview of prominent linguistic principles in the acquisition of Spanish as a second language. Application of theory to language acquisition, pragmatics, and teaching/learning Spanish grammar such as verbal morphology system, indicative/subjunctive mood system and pronominal system in Spanish.

Prerequisite(s): 3 hours from advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4260 - Linguistic Structures of Spanish

3 hours Introduction to core areas of linguistic study of Spanish (phonetics, phonology, morphology, syntax, semantics) and consideration of sub-fields (language variation and change).

Prerequisite(s): 3 hours from advanced (3000- or 4000- level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4311 - Love, Sex and Power in the Literature of Spain

3 hours Survey of Spanish literature. Readings, lectures, discussions and term projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4360 - Survey of Spanish-American Literature

3 hours Spanish-American literature from the colonial period to 1888. Readings, lectures, discussions and term projects.

Prerequisite(s): 6 hours of advanced (3000- or 4000-level) Spanish or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4361 - Latin America: Memory and Modernity

3 hours Spanish-American literature from the colonial period to 1888. Readings, lectures, discussions and term projects.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

SPAN 4450 - Contemporary Spanish Culture Through Cinema

3 hours Study of different cultural topics relevant in contemporary Spain. Topics include women in contemporary Spanish cinema, religion and Spain in contemporary Spanish cinema, globalization, Spain and Spanish cinema.

Prerequisite(s): Any SPAN 3000- or 3000-level course or consent of department.

May be repeated for credit as topics vary for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $11.10

SPAN 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SPAN 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

SPAN 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $10

Spanish Studies

SPST 3010 - Coming of Age Stories in Hispanic Films

3 hours Explores the cinematic representation of coming-of-age narratives in Hispanic films, focusing on the social, political, cultural, and emotional challenges faced by protagonists as they transition from adolescence to adulthood.

Special Education

EDSP 2010 - Dis/Ability, Community and Culture

3 hours Critically examines the understanding of dis/ability in society through an intersectional lens between disability and culture, race, class, gender and sexuality. Also provides knowledge about the diverse communities within dis/ability culture.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 3210 - Educational Aspects of Exceptional Learners

3 hours Overview of the unique physical, cognitive and behavioral needs of exceptional learners. The teacher's role in identification and referral procedures and implementation of effective educational practices as required by federal and state law are examined.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 3240 - Family Collaboration for Exceptional Learners

3 hours (2;1) Study of collaboration models and strategies used to work with families of students with exceptionalities. Focus on changing definition of family, community resources, advocacy, public policies and other factors that may impact students and their families. Attention is also given to working effectively with paraprofessionals. Presented in blended format including face-to-face, online and 15 hours of field work. For students seeking core subjects EC–6 with special education EC–12 certification as Interdisciplinary Studies majors in the College of Education.

15 hours per term/semester of field-work is arranged.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 3300 - Special Education Practicum I

3 hours (1;6) Practical experience in field sites (90 hours: 70 hours field experience and 20 hours classroom). Cognitive, affective and psychomotor objectives for observing behaviors, assisting in planning for instruction and participating in diagnostic processes. Professional development is emphasized.

Recommended: 60 hours of undergraduate credit, overall GPA 2.75, all sections of THEA must be passed.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 3410 - Developmental Disabilities and Autism: Identification and Intervention

3 hours Provides students with a background in the characteristics, causes, prevalence and identification of individuals with developmental disabilities and autism. Maximum consideration is given to classification categories as defined by the federal regulations, integration of assessment and educational planning, and specific interventions for facilitating the education and training for this target population.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 3420 - Behavioral Disorders: Characteristics, Identification and Intervention

3 hours An examination is made of the typical characteristics associated with severe behavior problems and procedures for identification. Emphasis is on the development of appropriate intervention programs.

Prerequisite(s): EDSP 3210 and EDSP 3300 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4110 - Clinical Teaching in Special Education

3 hours Clinical teaching under supervision. See "Clinical Teaching Program" under College of Education section in the Undergraduate Catalog for details.

Prerequisite(s): Admission to teacher education.

Recommended: All program course work with the exception of student teaching.

Pass/no pass only. Required for those seeking core subjects BA in Education with special education EC–12 certification/minor. See Student Teaching Program for details.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4320 - Educational Assessment and Evaluation of Exceptional Learners

3 hours Examines a variety of assessment and evaluation strategies that are appropriate for special and general education settings. Knowledge of basic testing procedures and terminology as related to the exceptional learner. Interpretation and utilization of test data in developing individual education plans. Introduction to curriculum-based assessment. Field experiences include administration of academic and teacher-made assessments.

Recommended: Admission to teacher education.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4330 - Advanced Educational Strategies for Exceptional Learners

3 hours Advanced educational strategies and interventions that promote academic performance of exceptional learners across a variety of settings and situations. Includes an emphasis on instructional use of computers and technology in the classroom.

Recommended: Admission to teacher education.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4340 - Classroom and Behavioral Management Strategies for Exceptional Learners

3 hours Approaches to behavioral management of exceptional learners across a variety of educational settings. Implementation of individualized techniques including applied behavioral analysis, as well as larger-group strategies, to foster positive behavioral, social and emotional growth. Special attention to the development of behavioral intervention plans and positive behavioral supports for students with challenging behaviors.

For pre-service students pursuing special education certification, in order to be compliant with the Texas Education Agency requirement for teacher certification, 25 hours of field-based experience in a TEA-approved classroom is required in this course.

Recommended: EDSP 3210 or equivalent.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4350 - Strategies to Support Diverse Learners in General Education

3 hours Examination of the roles of various professionals in the successful inclusion of students with disabilities in the general education classroom. Focus on consultation models, practices and principles with an emphasis on collaboration, cooperative learning and inclusion. Provides an overview of assessment techniques applicable for all learners in the general education classroom.

Prerequisite(s): Major in Education, BS and consent of department.

Required for those seeking core subjects EC–6 certification only. See Student Teaching Program for details.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4360 - Transition Education and Services for Exceptional Learners

3 hours Transition education and services for individuals with disabilities across the life span with emphasis on the post-secondary years. Examines the theory and practice of transition planning from school to community living, post-secondary education and employment. Legislative history and practical applications of skills such as transition assessment, job development and job placement are emphasized. Presented in blended format including face-to-face and online instruction.

Recommended: EDSP 4320 and admission to teacher education.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

EDSP 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $23.30

Sport Entertainment Management

SENM 3500 - Sport in the Global Marketplace

3 hours Sport in the Global Marketplace examines the global forces impacting sport and recreation in the USA and around the world. It provides students with a comprehensive view of global sport management and an understanding of cross-cultural influences on sport and recreation. Emphasis will be placed on the application of research and critical thinking as related to key issues in global sport.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 3600 - Venue and Event Operations in the Sport Entertainment Industry

3 hours Introduction to event and venue operations that allow students to become acquainted with strategies of event planning, venue management, staff and volunteer management, and event scheduling. Discusses management systems such as capacity management, bidding on events, risk management and security, and front and back of house management including event evaluation and sustainability. Students utilize strategies to properly plan, manage, and evaluate facilities and events based on sound theoretical and practical strategies found in the sport entertainment industry.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 3700 - Pricing Strategies in the Sport Entertainment Industry

3 hours Introduction to the pricing strategies of ticket, retail, and concession sales within the sport entertainment industry. Special attention will be given to the psychological effects of different pricing strategies and the motives of pricing selection around the world. Students apply their knowledge of pricing and consumer responses to the development of a pricing strategy report that allows a US-based professional sport organization to capitalize on sales while minimizing any pricing complaints from consumers.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 3900 - Leadership for Sport Business Professionals in the 21st Century

3 hours Introduction to a broad range of leadership and organizational issues in sport and examination of a range of topics including, but not limited to, leadership theories and styles, emotional intelligence, strategic leadership, and group dynamics. Explores a variety of pressing issues in 21st-century sport organizations and requires students to analyze and respond to such challenges by applying leadership fundamentals. Students develop an understanding of foundational theories of leadership, an awareness of issues affecting the modern sport organization, and the leadership skills to develop solutions and strategies that appropriately address such challenges.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4020 - Ticket Operations in the Sport Entertainment Industry

3 hours Explores how organizations in the professional sport entertainment industry can develop ticket sales strategies. Emphasis is on understanding principles and trends in ticket sales and teaching students the practice of selling. Subjects discussed in the course are pricing strategies, sales techniques, CRM software programs in ticket sales, technological advances in the sales industry (e.g. mobile phone apps, etc.) and ticket price strategies.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4230 - International Brand Strategies in the Sport Entertainment Industry

3 hours Introduction to brands that allow students to become acquainted with brand strategies within the international sport entertainment industry. Students will learn the concepts of branding and how it pertains to the international sport entertainment industry.

Students will be introduced to topics such as brand equity, tangible and intangible components of branding, brand communities, brand extensions and brand growth strategies. A strong emphasis is placed upon case studies to better understand how sport organizations have used their brands to generate revenue. By the end of the course, students will be able to apply their knowledge of international sport branding to the development of a brand strategy report that would allow a U.S. based sport organization to expand to a foreign market.

Prerequisite(s): MKTG 3650 with a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4240 - Corporate Partnerships in the Sport Entertainment industry

3 hours Explores how organizations in the sport entertainment industry can develop corporate partnerships. Emphasis is on understanding principles in corporate partnerships and/or sponsorships and student application of the materials in class. Discusses the evolution of sponsoring in the sport entertainment industry, sponsorship objectives, the sponsorship acquisition process, sponsorship activation strategies, ambush marketing and sponsorship evaluation. Student groups develop a sponsorship proposal on behalf of a client.

Prerequisite(s): MKTG 3650 with a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4310 - Talent Management in the Sports Entertainment Industry

3 hours Explores the unique managerial issues associated with talent management in the sport entertainment industry. Emphasis is on student application of material and proposing solutions to problems in developing, recruiting and managing talent in the sport entertainment industry. Examines the entirety of the talent management life cycle, including attracting talent, hiring processes, effective onboarding, managing workplace dynamics, performance management, leadership development, and succession planning and change management.

Prerequisite(s): MGMT 3720 with a grade of C or higher.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4325 - Fan Engagement Strategies in the Sport Entertainment Industry

3 hours The course serves as an introduction course to fan relationship management that allow students to become acquainted with the unique deep emotional connections that people maintain with their sport entertainment organizations. Fans are the driving force of the sport entertainment industry, generating revenue directly through tickets, hospitality and merchandise, and directly through sponsorship and media rights. The course is aimed to allow students to examine current efforts of leading sport leagues around the world to market their organization to their fan bases and the different ways they have done so. By the end of the course, students will be able to apply their knowledge of fan relationship management to the development of a fan engagement report for the benefit of a sport entertainment organization.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

SENM 4870 - Business Planning in the Sports Entertainment Industry

3 hours Advanced course for BBA BUIS students in the track of sport entertainment management. Allows students to combine and apply the content from previous course work to the conceptualization of a business plan and present it to representatives of the sport entertainment industry. Guest speakers from the various segments of the industry share their experiences and provide mentorship to the students in their development of the business plan.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $15.50 (instructional), $15 (differential)

Statistics

STAT 3680 - Applied Statistics

3 hours Descriptive statistics, elements of probability, random variables, confidence intervals, hypothesis testing, regression, contingency tables.

Prerequisite(s): MATH 1710. MATH 1720 (may be taken concurrently) or MATH 1810, MATH 1820, MATH 1830 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Fall and Spring

STAT 4650 - Statistics

3 hours Sampling distributions, point estimation, interval estimation, hypothesis testing, goodness of fit tests, regression and correlation, analysis of variance, and non-parametric methods.

Prerequisite(s): MATH 4610. STAT 3680 or at least a 4 on the AP Statistics test.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)
Typically Offered: Spring Only

Studio Art

ASTU 2101 - Beginning Ceramics: Handbuilding

(ARTS 2346)

3 hours (0;6) Introduction to hand building techniques to fabricate functional ceramics forms and ceramic sculpture.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2102 - Beginning Ceramics: Throwing

(ARTS 2347)

3 hours (0;6) Introduction to functional and non-functional wheel-throwing and glazing techniques and practices.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2201 - Beginning Drawing and Painting: Painting I

(ARTS 2316)

3 hours Introduction to painting practices and issues, including the study of methods and materials (oil, acrylic, tools, building of supports and surfaces), composition, value, color, and pictorial space centered on observation. Focuses on the capacities of painting and introduces students to technical and historical issues central to painting.

Prerequisite(s): A grade of a C or better in two of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2202 - Beginning Drawing and Painting: Painting II

(ARTS 2317)

3 hours (0;6) Development and expression of a working knowledge of various painting techniques and styles (representation, abstraction, conceptual), through the exploration of compositional dynamics and methods, materials and theories. Study of modern and contemporary issues in painting.

Prerequisite(s): ASTU 2201.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2300 - Introduction to Printmaking Techniques

3 hours (0;6) Survey of traditional and non-traditional printmaking techniques, introducing students to a variety of basic printmaking processes including the fundamentals of paper, inks, presses, printing and editing.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900.

For art education majors only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2401 - Beginning Metalsmithing

3 hours (0;6) Design, construction and forming using basic techniques with an emphasis on sculptural forms and containers.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2402 - Beginning Jewelry

(ARTS 2341)

3 hours (0;6) Design, construction and forming using basic techniques with an emphasis on personal adornment.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2501 - Beginning Photography: Photo I

(ARTS 2356)

3 hours (0;6) Beginning photographic materials, techniques, software and digital cameras. Assignments, lectures, demonstrations and critiques expose students to the necessary tools for creative image making and expression using photography. Students will gain technical competencies with DSLR cameras, Adobe Lightroom, and Inkjet printing.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2502 - Beginning Photography: Photo II

(ARTS 2357)

3 hours (0;6) Continued development with photographic materials, techniques, software and digital cameras. Assignments, lectures, demonstrations and critiques advance student understanding of the necessary tools for creative image making and expression using photography. Students will advance technical competencies with DSLR cameras, Adobe Lightroom, and Inkjet printing.

Prerequisite(s): ASTU 2501.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2601 - Beginning Printmaking: Relief

(ARTS 2333)

3 hours (0;6) Introduction to concepts and techniques of relief printmaking, including carving and printing wood, linoleum, and/or plastic relief matrixes. Black and white and multiple-color printing will be explored along with limited edition and monoprinting.

Prerequisite(s): A grade of C or better in two of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2602 - Beginning Printmaking: Screen Printing

3 hours (0;6) Introduction to concepts and techniques of screen printmaking including manual and photomechanical stencil-making. Black and white and multiple-color printing will be explored along with limited edition and mono-printing.

Prerequisite(s): A grade of C or better in two of the following: ART 1600, ART 1700 or ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2701 - Beginning New Media: Introduction to New Media Art

3 hours (0;6)

Introduction to the concepts and processes involved in New Media Art, emphasizing foundational digital tools and techniques.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2702 - Beginning New Media: Expanded Practices

3 hours

Focuses on foundational tools and techniques for creating experimental, fabricated, and physical objects through hands-on methods including digital fabrication, film, and sound.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2801 - Beginning Sculpture: Traditional Methods

(ARTS 2326)

3 hours (0;6) An introduction to the concepts and processes involved in the production of sculptural objects, with an emphasis on the tools, materials and techniques used in basic woodworking, metal fabrication, mold-making and casting techniques

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 2802 - Beginning Sculpture: Digital Methods

3 hours (0;6) An introduction to the concepts and processes involved in the production of sculptural objects, with an emphasis on basic digital fabrication tools and techniques such as 3D modeling, scanning and printing, CNC routing and CNC plasma cutting.

Prerequisite(s): 2 of the following: ART 1600, ART 1700, ART 1800.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3000 - Interdisciplinary: Rotating Topics

3 hours (0;6) Topics vary each semester. Interdisciplinary and inter-media approaches to art making. Courses offer integrated, multidimensional approach to art-making. Students will be introduced to historic and contemporary references in arts, criticism and curation.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, with a grade of C or better, and must have passed any 4 ASTU courses 2000 or higher with a grade of C or better.

May be repeated for credit for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3030 - Computer Applications in the Visual Arts

3 hours (2;4) Visual, conceptual and practical use of computers in art and design. Problem solving using computer graphics systems to generate images.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, or consent of instructor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3101 - Intermediate Ceramics: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of ceramics.

Prerequisite(s): ASTU 2101 and ASTU 2102.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3102 - Intermediate Ceramics: Surface and Ornamentation

3 hours (0;6) Study and practice of ceramic surfaces though the implementation of decorative surface techniques, glaze application, and firing methods. Clay and glaze mixing, firing theory and practice, and conceptual ideas will be explored in this class.

Prerequisite(s): ASTU 2101 and ASTU 2102.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3103 - Intermediate Ceramics: Form, Function and the Body

3 hours (0;6) Technical and conceptual understanding of functional object design, utilitarian pottery, and their relation to the body. Clay and glaze mixing, firing theory and practice, and conceptual ideas will be explored in this class.

Prerequisite(s): ASTU 2101 and ASTU 2102 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3104 - Intermediate Ceramics: Molds and Multiples

3 hours (0;6) Study and practice of the creation of molds for slip casting and press molding and the practical and conceptual approach to the ceramic multiple. Clay and glaze mixing, firing theory and practice, and conceptual ideas will be explored in this class.

Prerequisite(s): ASTU 2101 and ASTU 2102 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3105 - Intermediate Ceramics: Material Studies

3 hours (0;6) Study and practice of ceramics materials, clay body and glaze formulation/mixing, kiln building practices, and firing techniques.

Prerequisite(s): ASTU 2101 and ASTU 2102 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3201 - Intermediate Drawing and Painting: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the disciplines of drawing and/or painting.

Prerequisite(s): ASTU 2202 with a grade of C or better.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3202 - Intermediate Drawing and Painting: Figure Drawing I

3 hours (0;6) Visual observation of the nude figure and interpretation through various graphic techniques.

Prerequisite(s): ART 1600 and either ART 1700 or ART 1800 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3203 - Intermediate Drawing and Painting: Figure Drawing II

3 hours (0;6) Investigations in both historical and contemporary use of the figure from academic negotiations of the figure (anatomy and nude models), conceptual and narrative territories and the use of expanded drawing media.

Prerequisite(s): ASTU 3202 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3204 - Intermediate Drawing and Painting: Figure Painting

3 hours (0;6) Painting the nude human figure and exploration of the figure as subject and narrative device. Introduction of formal issues and conceptual strategies related to painting the figure.

Prerequisite(s): ASTU 2202, ASTU 3202 and ASTU 3203 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3205 - Intermediate Drawing and Painting: Experimental Approaches

3 hours (0;6) Experimental approaches to drawing and painting through stretching, subverting and challenging traditional boundaries. The course is designed to ask questions about what drawing and painting is, explore the conventions of the disciplines and experiment with unfamiliar/unexpected materials, methods, theories and presentations. The focus is on critical exploration of alternative and contemporary means of creating images and enlarge understandings of the disciplines.

Prerequisite(s): ASTU 2201 and ASTU 2202 with a grade of C or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3206 - Intermediate Drawing and Painting: Themes, Variations and Series

3 hours (0;6) Exploration of the strategy of the series in drawing and painting to deconstruct, transform, distill, unpack, or otherwise evolve an idea.

Prerequisite(s): ASTU 2201 and ASTU 2202 with a grade of C or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3401 - Intermediate Metalsmithing and Jewelry: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of metalsmithing and jewelry.

Prerequisite(s): ASTU 2401 and ASTU 2402 with a grade of C or better.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3402 - Intermediate Metalsmithing and Jewelry: Color and Surface

3 hours Design in metals using intermediate processes with an emphasis on color and surface effects.

Prerequisite(s): ASTU 2401 and ASTU 2402 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3403 - Intermediate Metalsmithing and Jewelry: Plasticity

3 hours (0;6) Design in metal using intermediate processes with an emphasis on the plastic deformation of metal.

Prerequisite(s): ASTU 2401 and ASTU 2402 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3404 - Intermediate Metalsmithing and Jewelry: Adornment

3 hours (0;6) Design in metal using intermediate processes with an emphasis on jewelry.

Prerequisite(s): ASTU 2401 and ASTU 2402 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3405 - Intermediate Metalsmithing and Jewelry: Technology

3 hours (0;6) Design in metal using intermediate processes with an emphasis on industrial technologies.

Prerequisite(s): ASTU 2401 and ASTU 2402 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3501 - Intermediate Photography: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of photography.

Prerequisite(s): ASTU 2502 with a grade of C or better; or consent of department.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3502 - Intermediate Photography: Darkroom Photography

3 hours (0;6) Film-based photography, exposure, and darkroom printing. Through assignments, lectures, demonstrations and critiques students gain competency in analog photography, archival darkroom printing and film-based photography in relationship to contemporary art and photographic practices.

Prerequisite(s): ASTU 2502 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3503 - Intermediate Photography: Digital Imaging

3 hours (0;6) Digital techniques and software in photography. Through assignments, lectures, demonstrations and critiques students gain competencies in digital photography and image manipulation.

Prerequisite(s): ASTU 2502 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3504 - Intermediate Photography: Photography, Sound and the Moving Image

3 hours (0;6) Examination and practice with the intersection between still and moving images and explores the possibilities beyond conventional modes of photographic practice. Through assignments, lectures, demonstrations and critiques students gain competencies in video capture using a DSLR camera, audio capture, and video and audio editing software. Assignments and instruction will cover a wide range of approaches to video including narrative, non-narrative and installation.

Prerequisite(s): ASTU 2502 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3505 - Intermediate Photography: Alternative Processes

3 hours (0;6) Alternate processes in photography with emphasis on hand applied, non-silver photographic emulsions. Through assignments, lectures, demonstrations and critiques students gain competencies in digital negative creation, creating hand coated photographic papers and printing full tonal range photography images using historic printing processes.

Prerequisite(s): ASTU 2502 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3506 - Intermediate Photography: Lighting Techniques

3 hours (0;6) Photographic lighting procedures and studio techniques. Through assignments, lectures, demonstrations and critiques students gain competencies in professional photographic studio lighting, studio portraiture, product photography and tethered image capture. Completion of a portfolio of images is required.

Prerequisite(s): ASTU 2502 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3507 - Intermediate Photography: Field Photography

3 hours (0;6) Students use photography to examine and build an understanding of place. Students use photography to interpret, analyze, and criticize specific locations. Students consider the efficacy of art making in projecting solutions, taking activist stances and creating a new understanding of their surroundings.

Prerequisite(s): ASTU 2501 and ASTU 2502 with a grade of C or better; or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3601 - Intermediate Printmaking: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of printmaking.

Prerequisite(s): ASTU 2601 and ASTU 2602 with a grade of C or better.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3602 - Intermediate Printmaking: Intaglio

3 hours (0;6) Concepts and techniques of Intaglio printmaking. Coursework may include making and printing from drypoint plates, acrylic ground etching plates, and/or photopolymer plates. Black and white and multiple-color printing will be explored along with limited edition and monoprinting.

Prerequisite(s): ASTU 2601 and ASTU 2602 with a grade of C or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3603 - Intermediate Printmaking: Lithography

3 hours (0;6) Concepts and techniques of lithographic printmaking. Coursework may include making and printing from stones, polymer plates, ball grained plates, and/or photopositive plates and/or polyester plates. Black and white and multiple-color printing will be explored along with limited edition and mono-printing.

Prerequisite(s): ASTU 2601 and ASTU 2602 with a grade of C or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3604 - Intermediate Printmaking: Monotype

3 hours (0;6) Concepts and techniques of monotype printmaking. Coursework will include making unique print artworks from instable matrixes using additive, subtractive, ghost, trace, and stencil methods for imaging along with multiple impression registration printing.

Prerequisite(s): ASTU 2601 and ASTU 2602 with a grade of C or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3605 - Intermediate Printmaking: Artist's Printed Books

3 hours Application of the concepts and techniques of bookmaking within a print ethos. Emphasis on developing ideas, materials, presentation and basic bookbinding techniques in one-of-a-kind and multiple books.

Prerequisite(s): ASTU 2601 and ASTU 2602 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3701 - Intermediate New Media: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of new media.

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3702 - Intermediate New Media: Expanded Cinema

3 hours (2;4) Exploration of immersive video art using techniques like projection mapping and video manipulation, blending video, sound, and space to create interactive experiences.

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3703 - Intermediate New Media: Creative Coding

3 hours (2;4)

Introduction to programming and computational thinking as tools for artistic expression, enabling the creation of interactive, generative, and media-rich artworks, while exploring historical and cultural contexts.

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3704 - Intermediate New Media: Performance and Electronic Media

3 hours (0;6) Theory and practice of integrating electronic and interactive media in live performance

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3705 - Intermediate New Media: Experimental 3D

3 hours (0;6)

Explores the artistic and technical possibilities of 3D environments and interactivity, engaging with 3D modeling, virtual and augmented reality, and interactive media through hands-on projects and critical analysis.

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3706 - Intermediate New Media: Artificial Intelligence

3 hours (0;6) Investigates emerging AI tools and technologies, offering historical context, current artistic trends, and methods for integrating AI into art. Emphasizes creative projects, research, and ethical considerations surrounding these systems.

Prerequisite(s): ASTU 2701 and ASTU 2702 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3801 - Intermediate Sculpture: Rotating Topics

3 hours (0;6) Topics vary each semester. This course provides students with opportunities to engage in a range of methods, materials, sources, concepts and dialogue related to the discipline of sculpture.

Prerequisite(s): ASTU 2801 and ASTU 2802 with a grade of C or better.

May be repeated for credit as topics vary for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3802 - Intermediate Sculpture: Multiples and Monuments

3 hours (0;6) This course builds upon the fundamental principles of mold-making and casting learned in Beginning Sculpture: Traditional Methods, while exploring more complex concepts, materials, and techniques. (both hot and cold casting)

Prerequisite(s): ASTU 2801 and ASTU 2802 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3803 - Intermediate Sculpture: Installation Art

3 hours (0;6) An investigation of form and space and the ability for art to transform environmental and architectural sites.

Prerequisite(s): ASTU 2801 and ASTU 2802 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 3804 - Intermediate Sculpture: Art in Public

3 hours (0;6) An exploration of the many ways that art can exist in public spaces, from temporary interventions to formal proposal-based projects.

Prerequisite(s): ASTU 2801 and ASTU 2802 with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4000 - Topics in Studio Practice

3 hours (0;6) Variable topics course designed to explore concepts and processes in art making that go beyond the curricular parameters of traditional studio disciplines.

Prerequisite(s): Junior or senior standing in CVAD or consent of instructor.

May be repeated for credit as topics vary for a maximum of 12 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4010 - Professional Practices for the Studio Artist

3 hours

Study of theoretical and practical aspects of succeeding as a practicing artist outside the academy. Survey of the protocols and common practices expected of the artist as a productive member of the business community wherein fine art is the commodity.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900 and 5 out of the following: ASTU 2101, ASTU 2102, ASTU 2201, ASTU 2202, ASTU 2401, ASTU 2402, ASTU 2501, ASTU 2502, ASTU 2601, ASTU 2602, ASTU 2701, ASTU 2702, ASTU 2801, ASTU 2802. All prerequisite CVAD courses must be completed with a grade of C or better.

This class should be taken after admission into a concentration.

For all students seeking a major in the College of Visual Arts and Design, a grade of C or above must be earned in every art-based course required in the College of Visual Arts and Design (completed in residence or transferred to UNT) to be considered for credit toward a CVAD degree. A grade of D or below will not satisfy any art-based course requirements, electives or prerequisites.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4045 - Digital Fabrication for Art Majors

3 hours (0;6) Digital fabrication (the use of computer-controlled machines to create physical objects) is now easily accessible to individuals and is a rapidly growing field with tremendous entrepreneurial opportunities. Designed for art majors, emphasizes both the creative production of each individual student as well as the applicable processes of digital fabrication. Students are instructed on the basics of 2D and 3D object making and participate in group analysis of completed objects. Utilizes the traditional methods of the project-based studio course and adapts them to the online learning environment. By thoroughly documenting each project and uploading those images, students receive constructive criticism, both from the instructor as well as from their peer group.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900, ART 2350 and ART 2360, all with a grade of C or better.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4100 - Senior Ceramics Studio

3 hours (0;6) Advanced studies in ceramics with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities including the use of historic and contemporary references in ceramics and other arts, criticism, and expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900 and three of the following courses: ASTU 3101, ASTU 3102, ASTU 3103, ASTU 3104, ASTU 3105. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed ceramics entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4200 - Senior Drawing and Painting Studio

3 hours (0;6) Advanced studies in drawing and painting with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities including the use of historic and contemporary references in drawing and painting and other arts, criticism, expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3201, ASTU 3202, ASTU 3203, ASTU 3204, ASTU 3205, ASTU 3206. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed drawing and painting review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4400 - Senior Metalsmithing and Jewelry Studio

3 hours (0;6) Advanced studies in metalsmithing and jewelry with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities including the use of historic and contemporary references in metalsmithing and jewelry and other arts, criticism and expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3401, ASTU 3402, ASTU 3403, ASTU 3404, ASTU 3405. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed metals and jewelry entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4500 - Senior Photography Studio

3 hours (0;6) Advanced studies in photography with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities including the use of historic and contemporary references in photography and other arts, criticism, and expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3501, ASTU 3502, ASTU 3503, ASTU 3504, ASTU 3505, ASTU 3506. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed photography entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4600 - Senior Printmaking Studio

3 hours (0;6) Advanced studies in printmaking with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities

including the use of historic and contemporary references in printmaking and other arts, criticism, expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3601, ASTU 3602, ASTU 3603, ASTU 3604. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed printmaking entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4700 - Senior New Media Studio

3 hours (0;6)

Offers advanced studies in new media, emphasizing in-depth individual projects, professional development, and portfolio preparation. Students research and develop their concepts during their first semester in the course, then execute their work and participate in a capstone event in the second semester.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3701, ASTU 3702, ASTU 3703, ASTU 3704, ASTU 3705. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed new media entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

ASTU 4800 - Senior Sculpture Studio

3 hours (0;6) Advanced studies in sculpture with an emphasis on in-depth individually generated projects. Students will focus on professional development and portfolio preparation. Students will work on developing technical skills, materials and processes appropriate to their concepts as well as aesthetic sensibilities including the use of historic and contemporary references in sculpture and other arts, criticism, expression of personal concepts in works.

Prerequisite(s): ART 1600, ART 1700, ART 1800, ART 1900. Three of the following courses: ASTU 3801, ASTU 3802, ASTU 3803, ASTU 3804. All prerequisite CVAD courses must be completed with a grade of C or better. Must have passed sculpture entry review.

May be repeated for credit for a maximum of 12 hours. The required 6 credits (2 courses) must be taken over two semesters.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $43.80 (instructional), $45 (differential)

Teach North Texas

TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching

1 hour (1;0;1) Introduction to mathematics, computer sciences and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Fieldwork consists of planning and teaching three inquiry-based lessons to students in grades 3–5 in local elementary schools.

Prerequisite(s): Admission to the Teach North Texas Program; see the Teach North Texas advisor for details.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design

2 hours (2;0;1) Topics may include routes to teacher certification in mathematics, computer sciences and science teaching; various teaching methods designed to meet instructional goals; learner outcomes. Students develop and teach three inquiry-based lessons in the field in a middle school and participate in peer coaching.

Prerequisite(s): TNTX 1100 or consent of Teach North Texas advisor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons

3 hours (3;0;1) One-semester introduction (equivalent to TNTX 1100 and TNTX 1200) to mathematics, computer science and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Topics may include various teaching methods designed to meet instructional goals and learner outcomes. Students develop and teach three inquiry-based lessons in their field in a middle school and participate in peer coaching.

Prerequisite(s): Junior or senior standing and consent of the Teach North Texas advisor. Students may not enroll in TNTX 1300 if they have completed TNTX 1100 and/or TNTX 1200.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 3100 - Conceptual Algebra

3 hours Patterns, relationships, proportional reasoning, linear modeling, polynomials, exponential modeling, quadratic modeling, systems of equations, and the Pythagorean Theorem. Emphasizes hands-on learning and technology and provides content knowledge in mathematics.

Prerequisite(s): TNTX 1200 or TNTX 1300; EDCI 3500 (may be taken concurrently); MATH 1650 (or equivalent); or consent of department

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 3200 - Science Laboratory Instruction and Design

3 hours Laboratory and field safety, lab management, lab design, and use of modern technology in middle and high school laboratories.

Prerequisite(s): TNTX 1200 or TNTX 1300, and EDCI 3500 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 4150 - Conceptual Geometry

3 hours Using inquiry-based learning, hands-on learning, and technology, the structures, functions and relationships of geometric concepts are explored and uncovered to provide deep, connected content knowledge of Euclidean geometry. Comparisons to spherical geometry, elliptical geometry and hyperbolic geometry, all known as non-Euclidean geometry, is included in the development of the critical, foundational understanding of Euclidean geometry's structures, functions, and the relationships within geometric concepts.

Prerequisite(s): TNTX 1200 or TNTX 1300, and successful completion of EDCI 3500 (may be taken concurrently) and MATH 2000 (or equivalent), or consent of department.

May be repeated for credit for a maximum of 9 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 4200 - Conceptual Science

3 hours Topics in conceptual science, such as laboratory and field safety, lab management, lab design, differences between a content-specific dynamic conceptual model and static model of content, as well as using modern technology in science.

Prerequisite(s): Admission to the Teach North Texas program, a university grade point average of at least 2.50, and completed TNTX 1200 or TNTX 1300, and EDCI 3500, or with department consent. Minimum of 6 credit-hours of major content courses.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 4900 - Special Problems

1–3 hours Prerequisite(s): TNTX 1100 and TNTX 1200 (or TNTX 1300), and consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 4910 - Special Problems

1–3 hours Prerequisite(s): TNTX 1100 and TNTX 1200 (or TNTX 1300), and consent of department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

TNTX 4930 - Selected Topics in Mathematics and Science Teaching

3 hours Topics of current interest, which vary from year to year.

Prerequisite(s): TNTX 1100 and TNTX 1200 (or TNTX 1300), and consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $33.10 (instructional), $24 (differential)

Technical Communication

TECM 1200 - Developmental Writing

3 hours Fulfills TSI requirements for students who have not passed the writing portion of the Texas Higher Education Assessment with a score of 7 prior to enrolling in the university or who are not otherwise exempt. Covers sentence formation and skills needed for argumentation and exposition. Emphasizes audience, purpose and occasion.

Students must complete the requirements of the course with a grade of C or better in order to meet the prerequisite for ENGL 1310. Does not apply to degree.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 1500 - New Media Experience

3 hours Provides an overview of the user experience design and development process: How people in the technology industry work together to ideate, validate, develop, and sell digital media products; what job roles are involved in the process; and what avenues students can choose to pursue those roles.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 1600 - AI in Professional Settings

3 hours Explores various applications and ethical considerations of Artificial Intelligence (AI), including the benefits and limitations of AI-assisted writing tools and the potential impacts of AI on jobs and the workforce.

Core Category: Component Area Option A
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 1700 - Introduction to Professional, Science, and Technical Writing

3 hours A process-oriented introduction to writing, especially for science, pre-engineering and business students. Focuses on understanding the writing situation and provides students the opportunity to practice writing in response to professional, science and technical situations.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 2700 - Technical Writing

(ENGL 2311)

3 hours Expository writing, especially for science, pre-engineering and business students.

Prerequisite(s): ENGL 1310 or TECM 1700.

May be substituted for ENGL 1320 in some programs; students should consult advisors in their majors.

Core Category: Communication (English Composition and Rhetoric)
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 3010 - The Profession of Technical Communication

3 hours Provides a foundation for understanding technical communication as a profession. Focuses on the competencies required for information product creation; the tools used by technical communication professionals; collaboration techniques for effective team-based projects; and professional development through interaction with industry professionals.

Prerequisite(s): TECM 2700 (may be taken concurrently).

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 3100 - Visual Technical Communication

3 hours Learning and applying theoretically-driven strategies for producing commercial publications for high-tech industries. Designing visual information using industry-standard software.

Prerequisite(s): Majors in the Department of Technical Communication: TECM 2700 and TECM 3010, or consent of department.

Minor or certificate in Department of Technical Communication: TECM 2700 and declaration of minor or certificate.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 3200 - Information Design for Electronic Media

3 hours Focuses on the fundamentals of web design and explores the practical and theoretical issues that professional and technical communicators face as they manage and distribute the content they create.

Prerequisite(s): TECM 2700; TECM 3010; Professional and Technical Communication major status, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 3500 - Digital Media for Professional Communication

3 hours Combines theory and hands-on experience to focus on how a variety of emerging technologies, including mobile and social media, are used in professional settings.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 3550 - Content Strategy in Technical Communication

3 hours Introduction to the theories and methodologies associated with content strategy for online media in professional communication settings. Covers how technical communicators can use social media in their work and how professional communicators can plan, organize and develop online content.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4010 - AI and Automation in Technical Communication

3 hours Explores the impact of Artificial Intelligence (AI) and automation on professional and technical communication. Skills in using AI-assisted tools for content creation, project management, and user-experience design.

Prerequisite(s): Majors in the Department of Technical Communication: TECM 2700 and TECM 3010, or consent of department.

Minor or certificate in Department of Technical Communication: TECM 2700 and declaration of minor or certificate.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4100 - Proposal Writing

3 hours Provides a foundation in proposal writing. Focuses on each component of the proposal writing process: identifying appropriate revenue streams, developing fundable themes, writing specific work plans and budgets, and understanding the review process.

Prerequisite(s): Majors in the Department of Technical Communication: TECM 2700 and TECM 3010, or consent of department.

Minor or certificate in Department of Technical Communication: TECM 2700 and declaration of minor or certificate.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4180 - Advanced Technical Communication

3 hours Practical application of technical communication style, conventions, genre, and technologies in industry, business and the sciences.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4190 - Technical Editing

3 hours Focuses on the techniques for editing technical documents, including proofreading; copyediting; and comprehensive editing for audience, content, organization, style, and design.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4200 - Research Methods for the Practitioner

3 hours Explores the research tasks that professional and technical communicators face in real-world situations and, in some cases, work with a real-world client to investigate a research question. Explores the relationship between theory and research and learning how to design and carry out empirical studies using both quantitative and qualitative methods.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4250 - Writing Technical Procedures and Manuals

3 hours Application of the principles of technical style to the writing of technical procedures and manuals. Intensive practice in writing technical procedures and manuals.

Prerequisite(s): TECM 2700.

Programs outside of the Dept. of Technical Communication that allow (but not require) TECM 4250 as part of major requirements:

- Biochemistry, BSBC: All students required to take TECM 2700 as part of major requirements; pre-req of TECM 2700 should not affect ability of students to take TECM 4250.
- Biology, BSBIO: All students required to take TECM 2700 as part of major requirements; pre-req of TECM 2700 should not affect ability of students to take TECM 4250.
- Mathematics, BSMTH (teacher certification and non-teacher certification: FL Option 2 allows students to pick 2 courses out of 5 TECM courses, one of which is TECM 2700; therefore, pre-req of TECM 2700 should not affect ability of students to take TECM 4250.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4300 - Usability and User Experience in Technical Communication

3 hours Introduction to the theories and methodologies associated with assessing and measuring the usability and user experience of documents, software, web sites, mobile applications and other technical or professional interfaces. Methods may include card sorting, think aloud protocol, interviews, observations, cognitive walkthroughs, task analysis, heuristic evaluations and eye tracking, among others.

Prerequisite(s): TECM 2700; TECM 3010; Professional and Technical Communication major, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4400 - Advanced Information Design in Technical Communication

3 hours Introduction to web application development as it pertains to technical communication. Develop interactive procedural content using a variety of markup and programming languages. Introduction to theory and practice of information design to create visual and multimedia versions of their web content.

Prerequisite(s): TECM 3200.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4500 - Content Analysis in Technical Communication

3 hours

Covers the systematic, objective, and quantitative analysis of message characteristics with a professional communication focus. Explores various approaches to analyzing content, including computer-aided, human-coded, and sentiment analysis.

Prerequisite(s): Majors in the Department of Technical Communication: TECM 2700 and TECM 3010, or consent of department.

Minor or certificate in Department of Technical Communication: TECM 2700 and declaration of minor or certificate.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4700 - Writing in the Sciences

3 hours Intensive investigation of the genres of writing in the sciences. Applying appropriate structures for reporting general information and specific data for a variety of scientific contexts.

Prerequisite(s): TECM 2700.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4800 - Topics in Technical and Professional Communication

3 hours Explores a variety of specialized topics such as technical presentations, usability, and the history of technical communication.

Prerequisite(s): TECM 2700.

May be repeated for credit when topics vary for up to 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4910 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4920 - Cooperative Education in Technical Communication

3 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): TECM 2700; consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4950 - Senior Capstone Course

3 hours Culmination of the BA in professional and technical communication. Create a capstone portfolio and then present it to the professional and technical communication faculty and industry professionals.

Prerequisite(s): Professional and Technical Communication major status with 90 or more semester credit hours only.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

TECM 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Theatre

THEA 1030 - Lighting and Sound I

3 hours (3;2) Introduction to basic terminology, equipment, personnel and procedures for lighting and sound production in performing arts. Topics include introductions to lighting equipment, basic electricity, optics, color in light, sound equipment, acoustics, sound recording and playback, music and sound effects and safety considerations. Lecture and discussion. Application of concepts through practical exercises and lab hours.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1043 - Costume I

(DRAM 1342)

3 hours (3;2) Principles and practices governing the preparation of costumes for theatrical productions. Costume construction, basic materials, pattern making, work with special fabrics; introduction to design techniques. Practical application in laboratory and on crew assignments for theatrical productions.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1046 - Stagecraft I

(DRAM 1330)

3 hours (3;2) Introduction to basic scenery construction, properties, general theatre safety and operations. Includes a practical laboratory working in the scene shop on department productions. Time and dates in the practical laboratory determined through consultation with instructor.

Prerequisite(s): Theatre Major, Minor status, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1050 - Acting: Fundamentals

(DRAM 1351)

3 hours (3;1) The study of the art of contemporary acting, grounded in psychological realism. Exposure to a broad spectrum of acting techniques designed to develop use of the body, voice, intellect, memories and imagination. Emphasis on removal of the body's resistances and blocks which hinder a spontaneous and truthful reaction in a creative situation.

Prerequisite(s): Theatre Major, Minor, or consent of the Department. Students majoring or minoring in theatre who have received a grade of C in this course, even if they are transferring it in, will be required to audition for consideration for enrollment in THEA 3050. Any student who receives a grade BELOW a C will be allowed to repeat the course one more time. Should the student repeat the course and receive a grade BELOW a C again, the student will no longer be able to continue in the performance concentration.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1280 - Stage Management I

3 hours (3;2) Introduction to stage management pre-production, rehearsal and performance responsibilities and techniques. Lecture and discussion. Practical application of concepts through class exercises and lab hours.

Prerequisite(s): Theatre Major or Minor status or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1340 - Aesthetics of the Theatre Throughout the World

(DRAM 1310)

3 hours Theory and practice of theatre art throughout the world. Appreciation of drama in both western and nonwestern cultures. Principles of dramatic criticism. Cultural and social significance of the theatre and its drama.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1440 - Play Analysis

3 hours Principles and techniques governing the preparation of plays and other theatrical events for performance, design, direction and production. Contemporary systems of script analysis. Emphasis on theory and criticism of theatre arts.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1700 - Theatrical Design I

3 hours Introduction to principles and elements of design such as line, form, color composition, balance and symmetry, with specific focus related to costume, makeup, lighting and sound, properties and scenery.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 1701 - Theatrical Design II

3 hours (3;2) Advanced techniques for rendering, drawing and painting for scenic, costume and lighting designers. Pencil, ink and watercolor techniques for rendering architecture, scenery, costumes and lighting. Required for majors whose concentration is design/tech.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2051 - Theatre Voice I

(DRAM 2336)

3 hours (3;1) Introduction to the mechanics of the voice and effective use of the vocal instrument for the actor. A basic foundation of techniques for vocal preparation and performance, including vocal quality, range, resonance, energy and freedom.

Prerequisite(s): Theater Major, Minor, or consent of the department. Students majoring or minoring in theatre who have received a grade of C in this course, even if they are transferring it in, will be required to audition for consideration for enrollment in THEA 3050. Any student who receives a grade BELOW a C will be allowed to repeat the course one more time. Should the student repeat the course and receive a grade BELOW a C again, the student will no longer be able to continue in the performance concentration.

Required for theatre majors whose concentration is performance.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2095 - Stage Production I

(DRAM 1120)

1 hour (1;3) Introduction to principles and practices governing presentation of stage production. Students participate in support of department laboratory productions. Students complete lab hours assigned to costume shop, scene shop, lighting/sound, paints, properties and ushering, to gain an understanding of how each area supports an overall production.

Prerequisite(s): Theater Major, Minor, or consent of the department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2340 - Theatre Appreciation

3 hours (3;2) Study of the elements and production of the theatrical art form. Survey of theatre productions in and around the Dallas–Fort Worth region. Field trips.

May not be counted toward a major or minor in theatre. May be repeated for credit when the productions vary.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2351 - Theatre Movement I

(DRAM 1322)

3 hours (3;1) Expansion of physical skills with reference to body alignment, strength, flexibility, endurance, coordination and balance. Development of a practical understanding and application of fundamental principles of movement in individual, partner and group exercises as they apply to the craft of acting.

Prerequisite(s): Theater Major, Minor, or consent of the department. Students majoring or minoring in theatre who have received a grade of C in this course, even if they are transferring it in, will be required to audition for consideration for enrollment in THEA 3050. Any student who receives a grade BELOW a C will be allowed to repeat the course one more time. Should the student repeat the course and receive a grade BELOW a C again, the student will no longer be able to continue in the performance concentration.

Required for theatre majors whose concentration is performance.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2380 - Theatrical Makeup

(DRAM 1341)

3 hours (3;2) Principles and practices governing the use of theatrical makeup in the performance of a play or in a film or television production. Practical application in laboratory.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 2996 - Honors College Mentored Research Experience

3 hours Research experience conducted by a freshman or sophomore honors student under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; freshman or sophomore class status; consent of Honors College dean.

May only be taken once for Honors College credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3000 - Acting for Non-Majors

3 hours (3;1) Contemporary acting techniques, focusing on psychological realism. Develop physical and vocal expression, intellect, memory, and imagination. A key emphasis is placed on overcoming physical resistances and blocks to foster spontaneous and truthful reactions in creative scenarios.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3030 - World Theatre to 1700

3 hours Intense investigation of major developments in theatre performance and dramatic literature from their beginnings to the mid-17th century, from Western and non-Western worlds. Emphasis on plays, playwrights, actors and other theatre artists in relation to society. Lecture, student presentations and a research project with a cross-cultural emphasis.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3040 - World Theatre After 1700

3 hours Intense investigation of major developments in theatre performance and dramatic literature from the mid-17th century to the 21st century, from Western and non-Western worlds. Emphasis on plays, playwrights, actors and other theatre artists in relation to society. Lecture, student presentations and a research project with a cross-cultural emphasis.

Core Category: Creative Arts
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3043 - Costume Crafts

3 hours (3;1) An intermediate study of the principles and practices in the area of crafts for costuming including tools, materials and techniques for fabric dying and painting, hat-making, mask-making, leatherworking, felting, thermoplastics, jewelry-making. Intensive practical experience in advanced laboratory and production assignments.

Prerequisite(s): THEA 1043.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3046 - Computer Aided Drafting and Design for the Entertainment Industry

3 hours (3;2) Utilizing computer software to assist theatre and live event designers and technicians in presenting design and schematic drawings. Focusing on the basics of computer drafting, orthographic projections, creating ground plans, sections, elevations and details in layouts for production as well as 3D drafting in fully realized renderings.

Prerequisite(s): THEA Major or Minor, EDEM Major or Minor or consent of the department.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3050 - Acting: Realism I

3 hours (3;2) Exploration of various acting methods for investigating the creation of a character, including processes and exercises that iconic teachers associated with these approaches have employed. Formulation of an individual process for creating characters grounded in psychological truth, using texts from the contemporary theatre. Discovery of what works best for the individual actor's needs, with an emphasis on skill demonstration in class performances.

Prerequisite(s): Theater Major, Minor, or consent of the department, and THEA 1050, THEA 2051 and THEA 2351 or equivalent with a grade of "B" or better.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3070 - History of Theatrical Costume and Décor

3 hours Historical survey of clothing, architecture, furniture and decorative styles as they pertain to theatrical production.

Prerequisite(s): Theater Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3095 - Stage Production II

1 hour (1;3) Intermediate study of the principles and practices governing presentation of stage production. Students participate in support of department laboratory productions. Students complete lab hours assigned to costume shop, scene shop, lighting/sound, paints, properties and ushering, to gain an understanding of how each area supports an overall production.

Prerequisite(s): Theater Major, Minor and THEA 2095, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3100 - Directing I

3 hours (3;2) Introduction to the techniques of stage direction: conceptualization, staging and actor coaching. Script analysis, rehearsal organization and practical application of practices through scene work. Written examination on composition and picturization.

Prerequisite(s): Theatre Major, Minor and THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3030, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3130 - Lighting II

3 hours (3;2) Intermediate techniques for theatrical lighting, stage instrumentation and circuitry. Intensive practical experience in laboratory and production assignments.

Prerequisite(s): Theater Major, Minor and THEA 1030, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3140 - Acting: Styles and Periods

3 hours (3;2) Exploration of the advanced acting challenges of period and aesthetic styles. Includes the physical and vocal characterization requirements of the Greek, Restoration, Commedia dell'arte, and post-realism genres.

Prerequisite(s): THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3030, and THEA 3050.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3143 - Costume II

3 hours (3;2) Intermediate construction techniques for theatrical costuming. Intensive practical experience in advanced laboratory and production assignments.

Prerequisite(s): Theatre Major, Minor and THEA 1043, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3146 - Stagecraft II

3 hours (3;2) Intermediate study of technical theatre elements. Advanced rigging, pneumatics, automation, special effects, organic scenery and introduction of technical direction.

Prerequisite(s): Theatre Major, Minor and THEA 1046, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3280 - Stage Management II

3 hours (3;2) Advanced training for the organization and management of theatrical productions and companies. Practical application in laboratory and production management assignments.

Prerequisite(s): Theatre Major or Minor Status and THEA 1280 or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3351 - Theatre Movement II

3 hours (3;2) Advanced study of character development through movement-based exploration of the physical body. Focus on developing tools for approaching the creative process based on techniques for performance. Additional focus on collaboration as well as stage violence and consent-forward artistry.

Prerequisite(s): Theatre Major, Minor and THEA 2351, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3400 - Theatre for Young Audiences

3 hours (3;1) Recognition and examination of the history and philosophy, production and performance of theatre for young audiences. Through focused inquiry, work on the practical problems that arise in the selection and performance of dramatic texts, original collective creations and adaptation of selected literature. Emphasis on connecting artistic practices and trends in educational theatre to theories of child/adolescent development. Course designed for those who advocate theatre as a stimulus for learning, whether they are specializing in classroom teaching or seeking careers in professional theatre. Class activities may take place on site in a school or at a theater.

Prerequisite(s): Theatre Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3700 - Audition for the Stage

3 hours (3;2) Introduction of foundational skills that can be used in the process of auditioning for the stage. Focus on the diverse constructs of the theatre audition in order to expand confidence, practice techniques, create a positive impression in the audition scenario and devise strategies for navigating the process.

Prerequisite(s): THEA 3050.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3701 - Scenic Design

3 hours (3;2) Exploration of theatrical scenic design techniques, genres, styles, venues and historical contexts. 2D, 3D and CAD visual communication techniques will be used in a variety of hands-on portfolio building projects.

Prerequisite(s): THEA 1046, THEA 1700, THEA 1701, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3910 - Actors' Ensemble

1 hour (1;4) Principles and practices of character development governing stage performance. Students audition and then participate in directing exercises, classical and contemporary scenes, and theatre creation exercises. Serves as the acting ensemble for directing courses.

Prerequisite(s): Theater Major, Minor, or consent of the department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 3996 - Honors College Mentored Research Experience

3 hours Research experience conducted by an honors student with at least junior standing under the supervision of a faculty member.

Prerequisite(s): Admission to the Honors College; at least junior class status; consent of Honors College dean.

May be taken twice for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4000 - Acting: Musical Theatre

3 hours (3;1) Exploration of singing acting techniques, analysis of music and libretti, song selection for voice type, and the development of audition material. Additional study of the focusing skills that solo singing requires. Admission by vocal audition.

Prerequisite(s): Theatre Major, Minor and THEA 1050, THEA 2051, THEA 2351, and vocal audition, or consent of department.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4046 - Technical Direction

3 hours (3;2) Technical direction and project management of theatrical productions and event planning. Focus on project cost analysis, special problem solving, event planning and management, labor and transportation, production installs, and structural design.

Prerequisite(s): Theatre major or minor, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4050 - Acting: Realism II

3 hours (3;2) Advanced training in the process of creating a character grounded in psychological realism, with texts from modern realism as the source material for scene work. Further investigation of acting methodologies, processes, and exercises.

Prerequisite(s): THEA 3050, THEA 3700, and submission of an audition.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4051 - The Art and Craft of Voice Over

3 hours (3;1) Advanced vocal techniques such as characterization, articulation, enunciation, and vocal quality, as applicable to voice acting, as well as critical analysis of all types of voice over copy, including background, trends, genres, and sectors. Home studio set-up, navigating the microphone, voice over demo creation, and marketing.

Prerequisite(s): THEA 2051.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4095 - Stage Production III

1 hour (1;3) Advanced study of the principles and practices governing the presentation of stage production. Students participate in support of department laboratory productions. Students complete lab hours assigned to costume shop, scene shop, lighting/sound, paints, properties and ushering, to gain an understanding of how each area supports an overall production.

Prerequisite(s): Theatre Major, Minor Status and THEA 2095, THEA 3095, or consent of department.

Same as DANC 4095X .

May be repeated for credit for a maximum of 4 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4100 - Directing II

3 hours (3;2) Advanced staging techniques for various styles, periods, and genres of theatre. Best practices for director-designer collaboration. Preparation of a text for production and performance.

Prerequisite(s): Theatre Major, Minor and THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3100, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4110 - Scene Painting for the Theatre

3 hours (3;2) Principles and practices of scene painting. Use of the tools, materials and techniques of the modern scenic artist.

Prerequisite(s): Theatre Major, Minor and THEA 1701, or consent of department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4112 - Advanced Scenic Painting for the Theatre

3 hours 3;2 Advanced techniques in scenic painting, various 3D finishing techniques including lectures and sculpture as well as charge shine painter responsibilities of leadership, estimation and budgeting.

Prerequisite(s): THEA 1701 , THEA 4110.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4130 - Lighting III: Design

3 hours (3;2) Advanced lighting design principles, light plots and design skills as they apply to the performing arts. Conceptualization and communication of design ideas through script analysis, light studies, storyboards and related projects. Introduction to computer-aided design. Laboratory and practicum activities.

Prerequisite(s): Theatre Major, Minor and THEA 1030, THEA 3130, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4140 - Acting: Shakespeare

3 hours (3;2) Intensive study of Shakespeare's works from the point of view of the actor through script analysis, scene study, advanced vocal work, and acting exercises in order to explore the complex characters in Shakespeare's plays. Exploration of blank verse, language, scansion, phrasing, word emphasis, and antithesis through individual and group acting exercises, monologues, and scene study.

Prerequisite(s): THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3030, THEA 3050.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4143 - Costume Design

3 hours (3;2) Theories and styles of costume design for stage presentation. Techniques of analysis, interpretation, drawing, rendering and organizing.

Prerequisite(s): Theatre Major, Minor and THEA 1043, THEA 1700, THEA 1701, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4190 - Sound Production and Design for the Theatre

3 hours (3;2) Techniques for designing and production of sound support and effects for theatrical applications. Covering live, recorded, engineered and multiple effects. Emphasis on creativity and appropriateness of sound design for special theatrical situations.

Prerequisite(s): Theatre Major, Minor and THEA 1030, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4240 - Theatre in the Classroom

3 hours (3;1) Theories and practical application of theatre in the classroom with children and adolescents. Integrates the content area of theatre with educational pedagogy, with an emphasis on theatre games, improvisational play-making, story dramatization, and thematic work in educational and recreational settings. Includes lecture/discussions, group facilitation, peer teaching and off-campus classroom observation. Course of value to classroom teachers, performers, directors, writers and community service workers who view working with youth as part of career plan.

Prerequisite(s): Theatre Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4260 - History of the Broadway Musical

3 hours Critical investigation of the origin and development of American musical theatre. A survey of the Broadway musical from Irving Berlin to Stephen Schwartz. Beginning with a consideration of its historical roots, this course examines the contributions made by performers, composers, lyricists, playwrights, directors, choreographers and producers to the evolution of America's singular contribution to world theatre.

Prerequisite(s): Theatre Major, Minor and THEA 1440, or consent of the department.

Attendance at selected performances is required.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4310 - Acting for the Camera

3 hours (3;1) The exploration of camera acting and audition technique. Emphasis on building confidence with the camera, expanding acting range, and preparing for the diverse professional opportunities in the medium.

Prerequisite(s): THEA 1050, THEA 2051, THEA 2351, THEA 3050.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4346 - Design/Tech and The Profession

3 hours (3;2) Culminating Capstone covering historic and current trends in the entertainment industry, entrepreneurial best practices, portfolio development and digital networking.

Prerequisite(s): THEA 1700, THEA 1701, and one of the following: THEA 3070, THEA 3130, THEA 3143, THEA 3146, THEA 3701.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4351 - Physical Theatre

3 hours (3;2) Study and practice of physical theatre. The application of the physical and vocal methodologies of movement-based theatre to creative exercises. Intensive practice in collective creation for directors and actors. Audition required for enrollment.

Prerequisite(s): THEA 2351 and audition.

May be repeated for credit for a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4370 - Contemporary Latinx Theatre

3 hours Reading and critical examination of Latinx dramatic literature from the late 1960s to the present day, including discussion of leading Latinx playwrights, historical experiences, and the theatre groups that contributed to a professionally-oriented Latinx theatre in the U.S. Designed for those interested in both production and criticism.

Prerequisite(s): Theatre Major, Minor, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4380 - LGBTQ Plays and Performance After 1960s

3 hours Survey of LGBTQ plays and performances after 1960 to the present day, focusing on themes and issues of identity and representation. Course geared toward those interested in both production and criticism.

Prerequisite(s): Theatre Major, Minor Status, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4390 - Theatre and Social Change

3 hours (3;2) Exploration and examination of the potential relationship between theatre and contemporary issues from social, political and personal perspectives. Through readings, live performances, films/videos, personal experiences and historical and cultural concerns, students form and discuss personal points of view regarding contemporary issues and theatrical performances.

Prerequisite(s): Junior or Senior standing, and Theatre Major, Minor, or with consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4395 - Theatre and the Holocaust

3 hours The exploration and examination of performance and the arts as reflections of the experiences of people during the Holocaust.

Prerequisite(s): Theatre Major, Minor Status, or consent of the department.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4460 - Play and Film Scriptwriting

3 hours Dramatic theory, structure, characterization, dialogue and technical media as used by the playwright or the film scriptwriter in both dramatic and comedic works. Study of the scriptwriting process from proposal to production. Marketing of scripts. Practice in playwriting and film scriptwriting.

Prerequisite(s): Theatre Major, Minor, or consent of the department.

May be repeated twice for credit, but no more than 3 hours may be counted toward a major in theatre.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4500 - Theatre Topics

3 hours Representative topics include theatrical unions, theatre criticism, music for non-musical productions, dialects for stage and film performances, stage movement, directing and playwriting.

Prerequisite(s): Theatre Major, Minor, or consent of the department.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4600 - Rehearsal and Performance for the Stage

1–3 hours Focuses on the process of preparation for performance in a produced play. Includes attention to the audition process, script and character analysis, daily rehearsals, technical theatrical preparations including technical and dress rehearsals for public performances.

Prerequisite(s): Enrollment is based on audition process and Theatre Major, Minor and consent of the department.

May be repeated for credit as topics vary for a maximum of 3 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4700 - The Business of Acting

3 hours (3;2)

Capstone experience for graduating theatre students concentrating in acting. Focus on career and goal planning, resume, and branding tools. Exploration of personal professional goals, individual life choices, and the artistic process. Further exploration of personal aesthetics, values, philosophy, criticism, activism, and advocacy.

Prerequisite(s): THEA 3050, THEA 3700.

Also, enrollment is limited to seniors who have completed 90 hours of college-level courses and are within their final two semesters of completion of a Theatre Major with a Concentration in Acting, OR, if not, have been granted special permission to enroll by the professor.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4900 - Special Problems

1–3 hours Problems must be approved by the department chair. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4910 - Special Problems

1–3 hours Prerequisite(s): Theatre Major, Minor, or consent of the department.

Problems must be approved by the department chair. May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4920 - Theatre Practicum

3 hours Supervised work in a position related to student's major, professional field of study or career objective.

Prerequisite(s): Theatre Major, Minor, or Consent of the department.

May be repeated for credit up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

THEA 4951 - Honors College Capstone Thesis

3 hours Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis.

Prerequisite(s): Completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College.

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $60 (instructional fees), $6 (differential fees)

University Courses

UCRS 1100 - Application of Learning Foundations

1 hour Study of critical theories of learning and their effective utilization for increasing academic performance and persistence.

Prerequisite(s): Consent of department.

UCRS 1300 - Exploring Majors and Careers through Self Discovery

3 hours Assists undecided majors and others who wish to clarify their career goals in exploring their interests, abilities and values, and in relating these to academic, personal and career choices.

UCRS 1850 - First Year Seminar

3 hours Introduces students to new and exciting ways of becoming active and engaged citizens of the university community and larger society through the exploration of problems in the current world. Students develop skills of critical thinking, communication, values clarification, and self-awareness. Varying topics require a creative and interdisciplinary view of the world. Past topics include leadership information literacy, career and major exploration, community engagement and service.

May be repeated for credit for a maximum of 6 hours.

UCRS 2100 - Career Development

1 hour Clarification of career goals through standard assessments including career exploration and development, effective career decision making, resume writing, and interviewing skills.

Pass/no pass only.

UCRS 2900 - Special Problems

1–3 hours May be repeated for credit.

UCRS 3000 - Legal Studies Survey

3 hours Close reading and analytical skills aimed at LSAT preparation, exploration of careers in the law, and strategies for succeeding in law school.

Prerequisite(s): Junior standing and consent of Pre-Law Advisor.

UCRS 3050 - Effective Communication for Professionals

3 hours Communication skills for professional preparation including writing professional emails, reports, and job materials; interviewing; working as an effective member of a team; becoming an effective leader; giving professional presentations; practicing diverse and inclusive methods of professionalism; and becoming digitally literate.

UCRS 3150 - Introduction to Research and Other Scholarly Activities

2 hours Basics of research and scholarship, to include critical thinking, elements of research, design, ethics, technical writing, computer technology, publication, application and professional presentation.

May be repeated for credit. Offered summer term only.

UCRS 3600 - Leadership in Practice

3 hours Integrates guest speakers, foundational leadership theories and skills along with understanding of leadership in both theory and practice. Prepares students to become effective leaders on campus, in the community and in their professional careers.

UCRS 4500 - Global Leadership through Service

1–6 hours Introduction to leadership through the social change model of leadership development, which focuses on the importance of collaborative leadership for a broader purpose. Service-learning projects serve as the vehicle for leadership development for students as they develop cultural competency, learn about community needs and to identify and address social problems abroad.

Prerequisite(s): Consent of department.

May be repeated for credit up to a maximum of 12 hours.

UCRS 4600 - Practicum in Leadership

1 hour

Prepares CLASS Ambassadors to effectively represent their departments within the College of Liberal Arts and Social Sciences. Focuses on the development of leadership skills, organization of and participation in service opportunities and social events to foster community in CLASS.

Prerequisite(s): Consent of Department to enroll.

P/NP only. May be repeated for credit for a maximum of 4 hours.

UCRS 4700 - Social Studies Teaching Methods

3 hours

Designed to help prepare students to teach social studies courses for students in grades 7–12. Students are exposed to content and pedagogy to teach Texas history, U.S. history, world history, world geography, government and economics.

Prerequisite(s): Major must be History with Teacher Certification or Social Science with Teacher Certification.

Senior status and consent of department.

Same as HIST 4750.

UCRS 4800 - College of Liberal Arts and Social Sciences Internship

1–6 hours Supervised work in a job directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Junior or senior standing; students must meet employer's requirements and have consent of department.

May be repeated for credit for a maximum of 6 hours.

UCRS 4900 - Special Problems

1–21 hours May be repeated for credit.

University Success Courses

UNIV 2100 - Explorations

3 hours Engages students in exploring topics related to their university and post-graduate experiences or related themes. Emphasis is placed on critical thinking, communication, and personal reflection.

May be repeated for credit as topics vary. No more than 3 hours may count toward the University Core Curriculum requirement.

Core Category: Component Area Option B

UNIV 2300 - UNT Braven Career and Leadership Accelerator

3 hours Provides an applied learning experience focused on career development and leadership growth. Supports career readiness by helping to identify leadership and career assets, develop individualized career plans, and expand professional networks. Collaborate in teams with a range of academic majors to build skills, cultivate professional competencies, and connect with mentors who provide guidance on navigating internships and early career opportunities. Instruction from experienced professionals prepares students for internships, leadership roles, and post-graduation experiences.

Core Category: Component Area Option B

Women's and Gender Studies

WGST 2100 - Introduction to Women's and Gender Studies

3 hours Introduction to the multidisciplinary field of women's studies. Examination of diverse experiences of women and the significance of gender in society and culture, with a focus on factors such as race, class, age and sexual orientation.

Core Category: Component Area Option B
Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall, Spring and Summer

WGST 2900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

WGST 3100 - LGBTQ Studies

3 hours Introduction to LGBTQ Studies, an interdisciplinary field that raises questions about the meanings of sex, gender and sexuality in society.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall Only

WGST 3500 - Feminist Foundations

3 hours Explores the women's movement in the United States from the 1960s to the present. Issues of gender equity, reproductive rights, economic disparity, work and the family, and political participation are discussed within the contexts of second and third wave feminism.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall Only

WGST 3720 - Women's Literature

3 hours Studies in literature written by or about women.

Same as ENGL 3924.

May be repeated for credit as topics vary up to a maximum of 6 hours.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered:

WGST 4100 - Feminist and Womanist Theories

3 hours Historical overview, key concepts, and vocabulary of feminist/womanist theories in social and political contexts. Current and emerging bodies of feminist/womanist theories are used to define critical contemporary issues and debates, and to initiate discussion on wide-ranging social, political and global issues from a variety of feminist and gender perspectives.

Prerequisite(s): Any 2000- or 3000-level WGST course or consent of instructor.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Spring Only

WGST 4150 - Queer Theory

3 hours Survey of key historical and contemporary theoretical debates that have shaped the interdisciplinary field of queer studies with an emphasis on LGBTQ+ issues, identities, and activisms.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Spring Only

WGST 4250 - Gender and Sustainable Development

3 hours Explores how feminist perspectives are vital for understanding social, economic, political and ecological dimensions of international development, and for sustainability.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Spring Only

WGST 4260 - Topics in Women's and Gender Studies

3 hours Studies in psychology, sociology, history, literature and other subjects with a focus on either women's issues or the interaction of women and men in society.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

WGST 4350 - Gender and Globalization

3 hours Globalization as a gendered (and contested) political, economic, and cultural process focusing on the impact of globalization in shaping everyday lives.

Meets with WGST 5350.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20
Typically Offered: Fall Only

WGST 4800 - Professional Internship

3 hours Practical experience through employment under the supervision of the Women's and Gender Studies director and the coordinating professional in a company, organization or agency focusing on women. Partnering entities allow students to learn and execute meaningful gender-centered activities. Internships are 20 hours per week and must be arranged in advance of enrollment. Internships are unpaid.

Prerequisite(s): Junior or senior status.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

WGST 4900 - Special Problems

1–3 hours May be repeated for credit.

Course specific fees (in addition to tuition and mandatory):
Academic (AF) per hour: $20

World Languages, Literatures and Cultures

WLLC 3000 - Linguistic Landscapes Around the World

3 hours Exploration and analysis of cultural, historical, political and social dimensions of language use, language contact, and multilingualism in a range of linguistic landscapes around the globe.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3010 - Exploring Global Cultures

3 hours Examines cultural differences in various parts of the world, particularly in countries whose languages are taught in the Department of World Languages, Literatures and Cultures. Creates cultural awareness to prepare global citizens.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3020 - Linguistic Landscapes in the USA

3 hours Cultural, historical, political, and social dimensions of language use, language contact, and multilingualism in a range of linguistic landscapes in the United States.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3100 - Arab Cultures in Film and Music

3 hours Exploration of modern Arabic histories and cultures through movies and music. This course is taught in English and does not fulfill a foreign language requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3110 - Exploring the Arab World

3 hours Analysis and exploration of history, arts and society in the Arab world.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3200 - Chinese Culture and Society

3 hours Introduction to the contemporary cultures and societies of the Chinese-speaking world through readings and films. This course is taught in English and does not fulfill a foreign language requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3300 - French Influences in North America

3 hours Exploration of the influences of French language, people, and culture in parts of North America. With specific focus on eastern Canada, Louisiana and Texas.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3310 - The Best of French Pop Culture

3 hours Through exposure to, and analysis of different aspects of French culture (such as fashion, film, food, comics, music, advertisements, media, sports, language, and other cultural artifacts), students will learn to think about how popular culture is constructed and consumed in France.

This course is taught in English and does not fulfill a foreign language requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3320 - Pop Culture and Everyday Life in the Francophone World

3 hours Analysis and exploration of popular culture, everyday life, and current events in the francophone world.

May be repeated for credit as topics vary.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3400 - The Holocaust and Film

3 hours Examines how the Holocaust has been portrayed in feature films and documentaries.

This course is taught in English.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3410 - German Popular Culture

3 hours Exploration of socio-cultural trends and movements in German society from the 1960s to the present through the lens of popular culture. Discussions center on topics related to colonialism, youth rebellion, Cold War, environmental degradation, and confronting the legacy of National Socialism. Selected course materials range from popular music, movies, TV-series, to genres of popular fiction such as science-fiction and eco-thrillers. Taught in English.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3420 - German Graphic Novels

3 hours Exploration of socio-cultural topics in German society from the 1980s to the present through the lens of graphic novels. Discussions center on topics related to the Holocaust, the division of Germany, immigration, and confronting the legacies of colonialism, National Socialism, and the Cold War. Taught in English.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3530 - Cosa Nostra: The Mafia in History and Fiction

3 hours Exploration of the growth of the Mafia from its origins to the present day. Taught in English.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3540 - The Worlds of Dante

3 hours Examines the Middle Ages through the Divine Comedy of Dante Alighieri.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3600 - Japanese Popular Culture

3 hours Exploration and analysis of contemporary Japanese popular culture in a variety of contexts. This course is taught in English and does not fulfill a foreign language requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3610 - Introduction to Japanese Linguistics

3 hours Foundations of Japanese linguistics, including phonetics, phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 3700 - Classical Mythology

3 hours Overview of the principal myths of classical antiquity, from Homeric Greece to the Roman Empire, and their significance for today's culture. This course is taught in English and does not fulfill a foreign language requirement.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

WLLC 4900 - Special Problems

1–3 hours None.

Prerequisite(s): Consent of department.

May be repeated for credit.

Course specific fees (in addition to tuition and mandatory): Academic (AF) per hour: $10

Administration, Faculty and Librarians

UNT System and University Officers

Board of Regents

See the Board of Regents website for an updated list of Board members and committee appointments.

Carlos Munguia, Chair (2029), University Park
Melisa Denis, Vice Chair (2025), Southlake
Cathy Bryce (2029), Argyle
Lynn Gravley (2031), Gunter
A.K. Mago (2027), Dallas
Lindy Rydman (2027), Houston
John Scott Jr. (2025), Keller
Terri West (2029), Lucas
Laura Wright (2027), Dallas

Student Regent
Appointed annually

UNT System Administration

The University of North Texas System is led by Chancellor Michael R. Williams, who reports to the UNT System Board of Regents. The updated UNT System organizational chart may be found on the UNT System website.

Michael R. Williams, DO, MD, MBA, Chancellor of the University of North Texas System
Harrison Keller, PhD, President of UNT
Warren von Eschenbach, PhD, President of UNT Dallas
Kirk A. Calhoun, MD, FACP, President of UNT Health Fort Worth

An updated list of the Chancellor's Cabinet and Staff may be found on the UNT System web site.

Greg Anderson, BS, Deputy Chancellor for Finance and Operations
Donna Asher, PhD, Vice Chancellor of People and Culture
Rachel Barone, MA, Chief of Staff
Frank Bernard, JD, Chief Compliance Officer
Ninette Caruso, MCom, Chief Audit Executive and Enterprise Risk Officer
Jeff Darnaby, **BS**, Chief Transformation Officer
Steve Moore, MBA, Chief Marketing and Communications Officer
Rey Rodriguez, MPAff, Chief Strategy Officer
Juan F. Serrano, MBA, Vice Chancellor and Chief Information Officer
Alan Stucky, JD, Vice Chancellor and General Counsel

UNT Administration

Harrison Keller, PhD, President of UNT

An updated list of the President's Executive Leadership and Cabinet may be found on the UNT President's Office web site.

Heidi Elmendorf, PhD, Deputy to the President for University Initiatives
Albert Bimper, PhD, Interim Provost and Vice President for Academic Affairs
Brandon Buzbee, BS, Vice President for University Advancement
James Coll, PhD, Vice President for Marketing and Communications
James Garrison, MA, Chief Information Officer
Clayton Gibson, MAcc, CPA, Vice President for Finance and Administration and Chief Financial Officer
Shannon Goodman, MS, Vice President for Enrollment
Jared Mosley, MEd, Vice President and Director of Athletics
Pamela Padilla, PhD, Vice President for Research and Innovation
Alayne Sewick, BS, SPHR, Assistant Vice Chancellor and Chief Human Resources Officer
Clay Simmons, MBA, JD, Vice President and Chief Integrity Officer
Michelle Singh, PhD, Vice President for Strategic Educational Alliances
Elizabeth With, EdD, Senior Vice President for Student Affairs

Academic Deans

Honors College

Glênisson de Oliveira, PhD, Dean

G. Brint Ryan College of Business

Marilyn Wiley, PhD, Dean

College of Education

Angie Cartwright, PhD, Interim Dean

College of Engineering

Paul Krueger, PhD, Dean

College of Information

Kinshuk, PhD, Dean

Frank W. and Sue Mayborn School of Journalism

James Mueller, PhD, Dean

College of Liberal Arts and Social Sciences

Steve Cobb, PhD, Interim Executive Dean

School of Merchandising and Hospitality Management

TBA, Dean

College of Music

John W. Richmond, PhD, Dean

College of Public Affairs and Health Sciences

Nicole Dash, PhD, Dean

College of Science

Ed Dzialowski, PhD, Interim Dean

College of Visual Arts and Design

Karen Hutzel, PhD, Dean

Texas Academy of Mathematics and Science

Glênisson de Oliveira, PhD, Dean

Faculty and Librarians

Information regarding individual faculty members and librarians is available from the Faculty Information System (facultyinfo.unt.edu). Select "Faculty Name" from the Browse menu.

Graduate faculty of the College of Biomedical and Translational Sciences and the College of Public Health at the University of North Texas Health Science Center at Fort Worth (UNT Health) also are members of the graduate faculty of the University of North Texas and thus can serve as mentors or committee members of UNT graduate students appropriate to their graduate appointment. See the UNT Health Catalog for UNT Health graduate faculty listings.

Emeritus Faculty

Abel, Mickey, Visual Arts and Design (2003-2019).
Adkison, Judith, Education (1983-2011).
Albarran, Alan, Liberal Arts and Social Sciences (2000-2018).
Albertson, Roxanne, Education (1979-2000).
Allison, Jay, Liberal Arts and Social Sciences (1989-2020).
Altekruse, Michael, Education (1995-2005).
Atkinson, Samuel, Science (1989-2023).
Austin, Jerry, Visual Arts and Design (1982-2017).
Austin, Stephen, Music (2001-2023).
Babcock, Mary Lynn, Liberal Arts and Social Sciences (1996-2021).
Bahnsen, Kenneth, Education (1955-2003).
Bailey, Don C., Education (1962-1999).
Baird, James, Arts and Sciences (1966-2011).
Beitinger, Thomas L., Arts and Sciences (1976-2011).
Benet, Diana, Arts and Sciences (2001-2012).
Berg, Robert, Education (1968-2006).
Bland, Robert, Health and Public Service (1982-2024).
Blow, David, Visual Arts (1980-2011).
Boedenhamer-Davis, Eugenia, Public Affairs and Community Service (1974-2010).
Boley, Richard, Business Administration (1990-2005).

Booth, John, Arts and Sciences (1984-2011).
Borden, Weston T., Science (2004-2017).
Bower, Beverly, Education (2008-2019).
Bowman, Brian, Music (1999-2018).
Brady, William T., Arts and Sciences (1962-1999).
Brand, Neal, Science (1988-2017).
Brantton, Sue, Education (1992-2017).
Braswell, Michael, Business (1990-2015).
Braterman, Paul S., Arts and Sciences (1988-2006).
Brookshire, William, Education (1970-2003).
Brostow, Witold, Engineering (1989-2019).
Brothers, Lester, Music (1974-2005).
Brown, Newel Kay, Music (1970-1991).
Broyles, Sheri J., Journalism (1996-2020).
Buckalew, Mary, Arts and Sciences (1965-1998).
Buckles, Bill P., Engineering (2006-2021).
Bullock, Lyndal M., Education (1978-2017).
Bush, Barbara, Education (2002-2020).
Bush, Deanna D., Music (1980-2011).
Butt, Harlan, Visual Arts and Design (1976-2017).
Caldwell, Patsy, Education (1959-1998).
Callicott, J. Baird, Arts and Sciences (1995-2015).
Campbell, Lloyd P., Education (1970-2006).
Campbell, Vicki L., Liberal Arts and Social Sciences (1982-2020).
Candelaria, Leonard, Music (1974-2003).
Chandrasekaran, Perinkolam, Business (1981-2020).
Chang, Amy, Visual Arts and Design (200-2017).
Cheal, Susan, Visual Arts and Design (2000-2017).
Chelliah, Shobhana, Liberal Arts and Social Sciences (1996-2022).
Cherry, William, Science (1998-2024).
Chesky, Kris, Music (2001-2024).
Chipman, Donald, Arts and Sciences (1964-2002).
Chisholm, Rose Marie, Music (1995-2012).
Chng, Chwee-Lye, Education (1981-2013).
Clark, Thomas, Music (1976-2004).
Clay, Joan Marie, Merchandising, Hospitality and Tourism (1990–2011).
Clay, Raymond J., Business (1983-2011).
Conover, James, Business (1989-2018).
Conover, Teresa, Business (1989-2017).
Contreras, Gloria, Education (1987-2011).
Cornelius, Bill, Education (1966-2004).
Costabile-Heming, Carol Anne, Liberal Arts and Social Sciences (2012-2024).
Cox, Randall, Liberal Arts and Social Sciences (1997-2023).
Crader, Jeannine, Music (1970-1997).
Crocker, Betty, Education (1988-2010).
Crowder, Robert, Arts and Sciences (1979-1997).
Curtis, Mary, Business (1998-2022).
Cushman, Shelley, Liberal Arts and Social Sciences (1977-2019).
Dandekar, Sushama, Science (1998-2023).
Davis, Mark, Business (1998-2024).
Davis, Richard, Visual Arts and Design (1968-2018).
Day, Kaaren, Education (1982–2008).
DeLaney, Gloria, Education (1960-1999).
Dickenson, Jerry, Hospitality and Tourism Management (1996-2016).
Dickstein, Rebecca, Science (2000-2022).
DiFiori, Linda, Music (1996-2014).
Ditzenberger, Roger, Education (1980–2007).
Dixon, Paul, Education (1992-2006), Dean.
Dixon, Richard A., Science (2012-2021).
Dixon-Krauss, Lisbeth, Education (2009-2019).
Donahue, Manus, Arts and Sciences (1982-2002).
Donahue, Ruthann, Arts and Sciences (1990-2002).
Dworak, Paul, Music (1979-2017).
Earp, Norman Wesley, Education (1963-1997).
Eaton, Henry, Arts and Sciences (1966-2011).
Emmanuel, Donna, Music (2002-2020).
Engels, Dennis, Education (1976-2011).
Esterchild, Elizabeth, Public Affairs and Community Service (1969-2007).
Evenson, Thomas, Health and Public Service (1980-2017).
Falsetta, Vincent, Visual Arts and Design (1977-2017).
Feigert, Frank, Arts and Sciences (1977-2003).
Ferring, C. Reid, Liberal Arts and Social Sciences (1978-2019).
Fink, Ron, Music (1964-2000).
Finn, Don, Business (2009-2020).
Fisher, Dennis, Music (1982-2019).
Fitzpatrick, Lloyd, Arts and Sciences (1970-2014).
Forde, Steven, Arts and Sciences (1987-2017).
Forney, Judith, Merchandising, Hospitality and Tourism (1992-2024).
Foster, Phillip, Engineering (1982-2017).
Fox, Norris, Education (1972-2009).
Friedman, Bonnie, Liberal Arts and Social Sciences (2008-2021).
Froehlich, Hildegard, Music (1976-2001).
Frost, Carol Ann, Business (2007-2018).
Garner, Cody, Music (1989-2006).
Getschow, George, Journalism (2002-2017).
Gibbons, Henry, Music (1980-2012).
Gleeson, Larry, Visual Arts and Design (1972-2007).
Glick, Edwin, Arts and Sciences (1970-1995).
Glover, Rebecca, Education (1995-2019).
Golden, David, Arts and Sciences (1985-2004).
Golden, Richard, Liberal Arts and Social Sciences (1994-2021).
Goodwin, Vicki, Business (1991-2014).
Gopal, Kamakshi, Health and Public Service (1993-2023).
Graves, Finley, Business (2002-2018).
Greenlaw, M. Jean, Education (1978-2005).
Groom, Joan, Music (1973-2011).
Grubbs, Bill, Engineering (1993-2011).
Guynes, Stephan A., Business (1969-2021).
Hamilton, Fred, Music (1989-2017).
Hargrove, Eugene, Liberal Arts and Social Sciences (1990-2015).
Harrell, Pamela, Education (2000-2020).
Harris, Andrew, Liberal Arts and Social Sciences (2002-2021).
Harris, Mary, Education (2000-2014).
Harrison, Thomas, Arts and Sciences (1972-2004).
Hasty, Ron, Business Administration (1992-2011).
Hayes, Robert (Bob), Engineering (1990-2018).
Hays, Henry, Business Administration (1964-2004); Dean.
Hayslip, Bert, Arts and Sciences (1978-2013).
Henderson, Sam, Arts and Sciences (1953-1985).
Henoch, Miriam, Arts and Sciences (1996-2005).
Holcomb, Terry, Education (1973-2005).
Holden, Jan, Education (1988-2019).
Hollaway, Linda, Health and Public Service (1995-2019).
Holman, John, Public Affairs and Community Service (1984-2006).
Hudnall, Margaret, Music (1968-2004).
Hudson, Johnetta, Education (1999-2012).
Huffman, Janie, Education (1996-2016).
Impson, Michael, Business (1987-2020).
Ingman, Stanley, Health and Public Service (1990-2018).
Jacobson, Arminta, Education (1981-2015).
James, George, Liberal Arts and Social Sciences (1983-2020).
Jessup, Robert, Visual Arts and Design (1991-2018).
Johnson, Charles, Education (1957-1994).
Johnson, Douglas A., Arts and Sciences (1971-2004).
Johnson, James, Jr., Visual Arts (1968-1995).
Johnson, Karrell, Music (1997-2013).
Jones, Mary, Business (2001-2021).
Jordan, Ann, Public Affairs and Community Service (1990-2014).
Josiam, Bharath, Merchandising, Hospitality and Tourism (2001-2023).
Kallman, Robert R., Jr., Science (1979-2019).
William T. Kamman, Arts and Sciences (1962-2009).
Kaplan, Marijn, Liberal Arts and Social Sciences (2002-2023).
Kappelman, Leon, Business (1990-2021).
Karafiath, Imre, Business (1984-2019).
Kavi, Krishna, Engineering (2001-2024).
Kennelly, Kevin, Arts and Sciences (1967-2000).
King, Kelley, Education (2006-2022).
Klammer, Thomas, Business (1970-2007).
Koop, Marie-Christine, Liberal Arts and Social Sciences (1990-2021).
Kowalski, Jacek, Arts and Sciences (1989-2014).
Kung, Joseph, Science (1984-2018).
Kuss, Malena, Music (1976-1999).
Kunz, Daniel, Science (1989-2023).
LaPoint, Thomas, Arts and Sciences (1999-2014).
Laney, James, Education (1985-2019).

Larson, George, Arts and Sciences (1970-2000).
Lawrence, Annette, Visual Arts and Design (1996-2020).
Leung, Paul, Public Affairs and Community Service (1999-2015).
Levin, Ben, Liberal Arts and Social Sciences (1990-2018).
Levin, Melinda, Liberal Arts and Social Sciences (1995-2023).
Lewis, Paul, Arts and Sciences (1970–2011).
Lillie, Nancy Boyd, Business (1991-2018).
Linebarger, James Morris, Arts and Sciences (1963-1996).
Lowe, Gale B., Business Administration (1965-1995).
Lowe, Richard, Liberal Arts and Social Sciences (1968-2018).
Luttrell, H. Dale, Education (1970-2007).
MacDonald, Don, Business (1989-2020).
Marcello, Ronald E., Arts and Sciences (1967–2009).
Martin, Barbara, Library and Information Science (1984-2010).
Mason, Diana, Arts and Sciences (2001-2012).
Mason, T. David, Liberal Arts and Social Sciences (2002-2021).
Matteson, Samuel, Arts and Sciences (1987-2014).
Mauldin, Richard D., Arts and Sciences (1977-2011).
McCarter, William, Visual Arts (1968-2005).
McClung, Alan, Music (2002-2017).
McCoy, Jerry, Music (2000-2015).
McCroskey, Lenora, Music (1982-2009).
McDaniel, Floyd (Del), Science (1974-2018).
McDonald, James, Business (1976-2013).
McGregor, Kent, Liberal Arts and Social Sciences (1989-2018).
McKee, Bill, Arts and Sciences (1978-2011).
McTee, Cindy, Music (1984-2010).
Merino, Barbara, Business (1983-2011).
Michaelsen, Robert, Business Administration (1987-2005).
Miller, William, Education (1964-1996).
Milnes, Robert, Visual Arts and Design (2006-2014).
Mohr, Cynthia, Visual Arts and Design (2003-2018).
Montler, Timothy, Liberal Arts and Social Sciences (1984-2020).
Morrison, George, Education (1995-2015).
Morrisson, Clovis C., Jr., Arts and Sciences (1962-1997).
Morrow, James, Education (1993-2017).
Moseley-Grady, Patricia, Education (1974-2002).
Nacke, Bruce, Visual Arts and Design (1987-2020).
Nash, Jerry, Arts and Sciences (1997–2007).
Nelson, Nancy, Education (2009-2019).
Neuberger, John, Arts and Sciences (1977–2010).
Newsom, Ron, Education (1977-2011).
Newton, Connie, Visual Arts and Design (1989-2007).
Niemann, Yolanda, Liberal Arts and Social Sciences (2012-2021).
Nordstrom, Lyle, Music (2000-2010).
Norris, Cathleen, Learning Technologies (1982-2024)
Notley, Margaret A., Music (2000-2021).
deOnis, Carlos, Arts and Sciences (1968-1995).
O'Rourke-Kaplan, Marian, Visual Arts and Design (1992-2018).
Parberry, Ian, Engineering (1990-2022).
Patton, Robert, Education (1973-2013).
Peak, Dan, Business (2000-2023).
Pekara, Jean, Education (1966-2001).
Phelps, Brent, Visual Art and Design (1980-2011).
Phipps, Graham, Music (1984-2014).
Pickens, Donald K., Arts and Sciences (1965-2006).
Pirtle, Robert M., Arts and Sciences (1980-2011).
Plummer, Mitty, Engineering (1992-2011).
Poe, Stephen, Business (1989-2020).
Powell, James (Don), Business (1977-2019).
Ramsey, Darhyl, Music (1987-2018).
Renka, Robert, Engineering (1984-2018).
Reynolds, Johnny Sue, Merchandising and Hospitality Management (1990-2006).
Reynolds, Kathleen, Music (1995-2020).
Richards, Thomas, Business (1983–2009).
Riggs, James, Music (1973-2008).
Romero, Gustavo, Music (2002-2024).
Ryon, James, Music (2011-2021).
Sale, Richard B., Arts and Sciences (1965-1995).
Schafer, Rollie, Arts and Sciences (1976-2007).
Schamber, Linda, Information (1991-2015).
Scharnberg, William, Music (1983-2018).
Schietroma, Robert, Music (1977-1998).
Scott, James, Music (2001-2018).
Scott, John, Music (1981-2018).
Sears, Ray, Arts and Sciences (1967-2001).
Seward, Rudy, Public Affairs and Community Service (1973-2011).
Shrader, David, Music (1992-2006).
Shuemaker, Ira, Visual Arts (1974-2001).
Siddiqi, Mazhar, Business (1991-2021).
Simms, Richard L., Education (1970-2006).
Sinclair, Richard, Arts and Sciences (1992-2014).
Sirvent, Michel, Arts and Sciences (1994-2016).
Slater, K. Neil, Music (1981-2008).
Slocum, Phyllis, Liberal Arts and Social Sciences (2005-2024).
Smith, Don W., Arts and Sciences (1967-2011).
Smith, John, Arts and Sciences (1964-1993).
Smith, Richard, Health and Public Service (1994-2019).
Soph, Edward, Music (1988-2017).
Sovik, Thomas, Music (1987-2019).
Sparks, Richard, Music (2009-2019).
Spears, Nancy, Business (2000-2023).
Spence, J. Wayne, Business (1980-2010).
Spencer, Sandra, Liberal Arts and Social Sciences (1996-2017).
Sprague, D. Jack, Visual Arts and Design (1990-2010).
Staff, Marcia, Business (1979-2019).
Steinel, Michael (Mike), Music (1987-2019).
Stephens, Elvis Clay, Business Administration (1963-1999).
Stern, Laura, Arts and Sciences (1994-2014).
Stevens, L. Robert, Arts and Sciences (1963-1998).
Stidham, Janie, Visual Arts and Design (1996-2020).
Summers, Patricia, Arts and Sciences (1967-2002).
Tanner, James T.F., Arts and Sciences (1965–2012).
Tas, Richard, Hospitality and Tourism Management (1985-2016).
Tashakkor, Abbas, Education (2009-2021).
van Tassel, Frances, Education (1993-2010).
Taylor, Lew, Business (1992-2019).
Teeter, C. Russ, Education (1967-2006).
Terrell, Sandra, Arts and Sciences (1979-2011).
Terry, Carmen, Liberal Arts and Social Sciences (1998-2021).
Thomas, Ruthanne, Arts and Sciences (1981-2016).
Thornton, John H., Business (1971–2006).
Tipps, Steve, Education (1992-2002).
Tobolowsky, Peggy, Health and Public Service (1989-2019).
Totten, Herman, Information (1977-2015).
Tunks, Jeanne, Education (2000-2019).
Turner, Elizabeth, Arts and Sciences (2002-2016).
Turner, Philip, Library and Information Sciences (1969-2011).
Vanecek, Michael T., Business Administration (1978-2006).
Vann, J. Don, Arts and Sciences (1964-1999).
Varanasi, Murali, Engineering (2004-2023).
Veazey, Charles O., Music (1973-2011).
Veddar, Richard, Business (1984-2019).
Venables, Barney, Science (2003-2018).
Vidrine, Donald, Arts and Sciences (1968-1998).
Walker, Myra, Visual Arts and Design (1987-2018).
Waller, William, Arts and Sciences (1989–2009).
Weinstein, Bernard, Public Affairs and Community Service (1989-2009).
Wells, Richard, Journalism (1979-2009).
White, Richard, Business (1990-2016).
Wickstrom, Carol, Education (1991-2013).
Wilhelm, Ronald, Education (1991-2013).
Williams, Fred, Business (1968-2007).
Williamson, John, Education (1968-2006).
Wilson, Timothy, Liberal Arts and Social Sciences (2001-2023).
Wilson, William, Arts and Sciences (1968-2001).
Windsor, John, Business (1983-2018).
Wright, Eugene P., Arts and Sciences (1966-2006).
Wright, Rex, Liberal Arts and Social Sciences (2011-2021).
Wu, Fred, Business Administration (1993-2005).
Young, Jon, Education (1977-2015).
Youngblood, Judy, Visual Arts and Design (1976-1997).
Zimmerman, Earl, Arts and Sciences (1970–2009).

Dates indicate years at UNT.

Emeritus Librarians

Bradley, Lou Ann (1974–2010).
Byerly, Gayla (2000-2016).
Galloway, Margaret E. (1967-1997).

***Grose, B. Donald** (1988–2009).
Harden, Jean (1994-2019).
****Hartman, Cathy** (1995-2016).
****Kelly, Melody** (1974–2009).
Lavender, Kenneth (1981-2001).
Martin, Morris (1971-2013).
McKnight, Mark (1990-2019).
O'Toole, Erin (2004-2022).
Sassen, Catherine (1980-2024).
Venner, MaryAnn (1995-2023).

* Dean Emeritus
**Associate Dean Emeritus

Dates indicate years at UNT.

President Emeritus

V. Lane Rawlins (2010-2014).

Dates indicate years at UNT.

'Fessor Graham Award

The most recent winner of the 'Fessor Graham Award is Sara Champlin, Associate Professor in Journalism.

The 'Fessor Graham Award is the highest honor bestowed by the student body at UNT. The award recognizes one faculty member each year for outstanding and unselfish service beyond the call of duty to students. It is named for the late Professor Floyd Graham, who taught at UNT for more than 40 years.

Previous winners

James Riddlesperger, Political Science, 1972
Charles Foster, Business, 1973
Leo Estrada, Sociology, 1974
Ben Chappell, Speech Communications, 1975
Milan J. Reban, Political Science, 1976
T. Bullock Hyder, Economics, 1977
Anshel Brusilow, Music, 1978
Umesh C. Banerjee, Biology, 1979
Tommie Collins Lawhon, Education, 1980
Douglas P. Starr, Journalism, 1981
David R. Fitch, Business, 1982
Jerry Lee Yeric, Political Science, 1983
John James Haynie, Music, 1984
Lee Knox, Geography, 1985
J. B. Spalding, Business, 1986
John S. Gossett, Communication and Public Address, 1987
Richard H. Wells, Journalism, 1988
Ernest F. Crystle, Foreign Languages and Literatures, 1989
Dan Haerle, Music, 1990
Valerie D. Martinez, Political Science, 1991
Fred Hamilton, Music, 1992
Kenneth Godwin, Political Science, 1993
Robert S. LaForte, History, 1994
Norris D. Fox, Education, 1995
Ann S. Windle, Education, 1996
Donald E. Chipman, History, 1997
P.R. Chandrasekaran, Finance, Insurance, Real Estate and Law, 1998
Juliet Getty, Merchandising and Hospitality Management, 1999
William T. Waller, Biological Sciences, 2000
Gladys H. Crawford, Biological Sciences, 2001
Thomas P. Sovik, Music, 2002
Richard Tas, Merchandising and Hospitality Management, 2003
Brian L. Bowman, Music, 2004
David W. Hill, Kinesiology, Health Promotion and Recreation, 2005
Kimi King, Political Science, 2006
Dee Ray, Counseling and Higher Education, 2007
Donna Ledgerwood, Management, 2008
Lyndal M. Bullock, Educational Psychology, 2009
Gloria Cox, Political Science, 2010
Armin R. Mikler, Computer Science and Engineering, 2011
Shahla S Ala'i-Rosales, Behavior Analysis, 2012
Andrew Enterline, Political Science, 2013
Brian Lain, Communication Studies, 2014
Bethany Blackstone, Political Science, 2015
Michael Thompson, Philosophy, 2016
Brenda Sweeten, Social Work, 2017
Julie Leventhal, Educational Psychology, 2018
Jeannette Ginther, Teacher Education and Administration, 2019
Annie Lund, Biological Sciences, 2020
Gloria Cox, Political Science, 2021
Randy Loftis, Journalism, 2022
Brenda Barrio, Educational Psychology, 2023
Brian Lain, Communication Studies, 2024
Kim Keller, Journalism, 2025
Sara Champlin, Journalism, 2026